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Presidential Address

ON

MEDICAL EDUCATION—PAST, PRESENT, AND FUTURE.

Delivered at the Seventy-third Annual Meeting of the British Medical Association on July 25th, 1905,

BY GEORGE COOPER FRANKLIN, F.R.C.S. ENG.,

HONORARY SURGEON TO THE LEICESTER INFIRMARY.

[AFTER the usual words of welcome to the Association, and having expressed his thanks for the honour which had been accorded to him in his election as President, Mr. Franklin proceeded to give a short *résumé* of the history of Leicester. After mentioning the names of Goulston, the founder of the Goulstonian lectures; Cheselden, the famous surgeon to St. Thomas's Hospital; Halford, for 24 years President of the Royal College of Physicians of London; Benjamin Ward Richardson; and Tom Paget, of the Leicester Infirmary, the first provincial surgeon to obtain a seat on the Council of the Royal College of Surgeons of England, all of whom were Leicestershire men, the President passed to the main subject of his address. He said:—]

I now propose, ladies and gentlemen, having referred to local matters in connexion with the medical profession of, I hope, some interest, to venture on some remarks with regard to the existing regulations by the State of the education of those who desire to become members of our profession. In doing so, in considering how the education is regulated to-day, I must, as a necessary preliminary, consider to some extent the regulations of the past, and then we can ask if the improvements of to-day are as great as they should be, if the regulations are producing the best possible results; if, in fact, the average student, when he or she leaves the medical school or hospital legally qualified, is as well equipped as possible for the responsibilities of the future. That this is a tremendous problem we recognise at once, when we consider for one moment what it means to a country, or rather to a series of countless communities, to have among them thoroughly well educated representatives of the medical profession. As it is absolutely impossible to suppose that a civilised community could exist without such representatives it follows, surely, that those communities in which are found the most highly educated members of the medical profession have an enormous advantage as compared with others. It seems to me that the importance of the education of the medical man or woman of to-day is greater than ever it was and the responsibilities of those who are engaged in teaching are also greater than ever.

THE APOTHECARIES ACT.

Now, as far back as 1722 there was an Act which empowered the Apothecaries' Company to visit the shops of all apothecaries practising in London and to destroy such drugs as they found unfit for use. In 1748 great additional powers were given to the Company by an Act authorising them to appoint a board of ten examiners, without whose licence no persons should be allowed to dispense medicines in London or within a circuit of seven miles round it. The celebrated Apothecaries Act of 1815 appears to have been the first Act to legalise medical practice and penalise unqualified practice and this was really the start in this country of any regulations recognised by the State with regard to the education of apothecaries, the then general practitioners. The General Medical Council did not come into existence until 1858, the date of the first Medical Act. Between 1815 and 1858 there seems to have been a sort of "hiatus," but two important events helped towards the first Medical Act—viz., the establishment of THE LANCET in 1823 and the founding of our Association in 1832 by Sir Charles Hastings of Worcester under the name of "The Provincial Medical and Surgical Association."

It will be interesting to refer to two or three clauses of the Act of 1815 before we proceed further—to Clause III. for example. The Masters and Wardens were empowered to enter shops of apothecaries and to examine drugs:—

> They shall or may search, survey, prove, and determine, if the medicines, simple, or compound, wares, drugs, &c., and any thing or things whatsoever therein contained and belonging to the art or mystery of apothecaries aforesaid, be wholesome, meet, and fit for the fare, health, and ease of His Majesty's subjects.

Again, in Clause VII. we read:—

> Whereas much mischief and inconvenience has arisen, from great numbers of persons in many parts of England and Wales exercising the functions of an apothecary, who are wholly ignorant and utterly incompetent to the exercise of such functions whereby the health and lives of the community are greatly endangered, and it is become necessary that provision should be made for remedying such evils, be it, therefore, further enacted that the said Master, Wardens, and Society of the Art and Mystery of Apothecaries of the City of London shall be empowered for ever to superintend the provisions of this Act and carry the several regulations and provisions thereof in relation to the several persons practising the art or mystery or profession of an apothecary throughout England and Wales into full execution.

Then follow clauses to appoint examiners and to appoint a chairman, all to hold office for one year, but to be eligible for re-election. Clause XIV., "To prevent any person or persons from practising as an apothecary without being properly qualified to practise as such," enacts that they should be examined by the court of examiners and receive certificates, provided always that no person shall be admitted to such examination until he shall have attained the full age of 21 years, and in Clause XV. it is enacted that such person must have served a five years' apprenticeship. Clause XX. provides for a penalty for practising without a certificate.

THE MEDICAL ACT OF 1858.

Coming now to the first Medical Act of 1858 we find it established a Council to be styled "The General Council of Medical Education and Registration of the United Kingdom, with branch councils for England, Scotland, and Ireland, consisting of representatives from the universities and corporations." The chief achievements of the Council have been the establishment of a preliminary examination and inducing the corporations to leave it to the national educational bodies, the visitations of examinations, and the publication of the Medical Register and of the Pharmacopœia. It has had some faults of course; the chief has been its want of sympathy with the great body of the profession, especially with regard to the representation of the profession in the Council.

A great defect of the Act of 1858 was that it permitted the separate registration of purely medical and purely surgical diplomas and therefore diplomas which did not guarantee an adequate acquaintance with all the subjects of professional examination were used by their holders to cover the whole ground of medical, surgical, and obstetric practice. In May, 1869, Mr. (afterwards Sir) John Simon said that persons practising on half qualifications were to be counted by thousands in the United Kingdom. Between 1858 and 188 nearly 20 Bills were introduced to remedy these main defects. In 1870 Lord Ripon's Bill was brought in to establish a simple code of regulations common to all the examining boards of the United Kingdom, sufficient and uniform tests of qualification as a condition of entry upon the Medical Register, a more or less consolidated examining authority, and more effectual provisions to restrain quacks. The principle was accepted by the Council but the Bill was wrecked by the opposition of the British Medical Association on the ground that no provision was made for the representation of the profession in the Council. The Government Bill of 1878 was a great improvement; among other things, it required that all persons desiring to be placed on the Medical Register should have both a medical and surgical qualification and it contained provisions for amending the 40th Clause—"Suppression of Unqualified Quacks"—and for the admission of women to examination. It also provided for the examination of, and registration of, dentists and midwives and amended the law relating to certificates of lunacy.

THE MEDICAL ACT OF 1886.

The celebrated Act of 1886 removed two conspicuous blots in the organisation of our profession. It made it necessary for every medical man to be qualified completely—that is, in the three main branches of practice—medicine, surgery, and obstetrics—before he can be placed on the Medical Register, and it has conferred representation on the great body of the profession.

MEDICAL EDUCATION IN LONDON 40 YEARS AGO.

In the "sixties" London students were gradually waking up to the fact that, although the College and Hall gave them the two qualifications which entitled them to be placed on the Medical Register, the diplomas did not give them the legal right to assume the title of "Doctor." Many men—hard-working and possibly ambitious—when coming up from

the country to the hospital heard of the University of London for the first time. Anyway, the University of London gave a degree, and why should they not go in for it? To show you how ill adapted the teaching was in those days in the London medical schools for those students who desired to graduate in London I will quote from a letter addressed in December, 1879, to the Chancellor of the University by a distinguished graduate, my old friend and teacher, Dr. J. S. Bristowe.

> Only a small minority of the students entering the medical profession in England offer themselves as candidates at the matriculation examination. Nearly 50 per cent. fail; of those 50 per cent. fail at the preliminary scientific examination. Of those who have passed this examination 35 per cent. fail at the first M.B. and of those who finally become candidates for the M.B. degree 19 per cent. are rejected. The collective result is that not 10 per cent. of the young men who enter at the lowest series of the examinations emerge successful at the last and that at least 72 per cent. are rejected at the matriculation and preliminary scientific examinations.

Dr. Bristowe observes that at that time there were 534 men living who held a medical degree in the University of London out of a total of nearly 25,000 practitioners holding British qualifications. The practical result of this is well known; scores of men left the London hospitals before their time was completed to obtain degrees in Scotland, Ireland, or elsewhere. In short, the system of education 40 years ago in the London medical schools, as far as there was any system, was designed to enable men to qualify at the College and Hall or at the two Colleges as soon as possible—this could then be done in four years or just under—and not to encourage work for the University of London degree.

Of course, I am well aware that some very good work was done, more especially in medicine and surgery; but in obstetrics and gynæcology the practice and instruction were alike insufficient. It must be remembered when referring to the medical education of 40 years ago that those were the days of the linseed-meal poultice (in the surgical wards), antiseptics were just beginning to be used, the clinical thermometer appeared on the scene, together with the laryngoscope and the ophthalmoscope. The clinical teaching was then, I suppose, nothing like so systematic as it is now, but some of the lecturing was most excellent. I might refer to the lecturing of the late Sir John Simon, then Mr. Simon, on pathology at my old school of St. Thomas's. He used to lecture to, perhaps, hardly a score of students. It would have been of immense advantage if he could have lectured to every medical student in London; a man of his learning and intellect was, in a way, almost wasted down in the old Surrey Gardens, but there was no attempt at concentration of professional studies in those days. If I were asked, In what respect do you think the medical education of 40 years ago was most deficient? I should without hesitation say it was deficient in three particulars: (1) preliminary examinations; (2) obstetric medicine; and (3) the administration of anæsthetics; and if I were asked to-day the same question I should give precisely the same answer.

MEDICAL EDUCATION OF TO-DAY.

Now I have referred to the regulations of the past, I will briefly consider those of to-day and note the improvements that have been effected. I may then, perhaps, venture to forecast what further advances may be made not only in the interest of the medical student but also to the advantage of the whole community. By the regulations of the General Medical Council no person can be registered as a medical or dental student who has not attained the age of 16 years; some, a great many, think the age ought to be 17 years. I am one of those. Further, no person can be allowed to register unless he or she shall have previously passed a recognised preliminary examination in the subjects of general education. The period of professional study between the date of registration as a medical student and the date of the final examination for any diploma which entitles its holder to be registered under the Medical Act must be a period of *bonâ fide* study during not less than five years. Now this period of five years is a minimum time and it obtains whether the curriculum be passed in England, Scotland, or Ireland, and whether the student is going in for a university degree or a college diploma; as a rule, of course the university man takes a longer time. The universities and medical corporations seem now to work on the same lines though differing in the severity of examinational tests—lines laid down by the General Medical Council. For instance, the curriculum and examination of the Conjoint Board have now been brought much more into line with those of the University of London and other universities than was formerly the case. This, of course, is so much to the good.

Now I will suppose a young friend (to start well, we will hope he has passed the matriculation examination of the University of London) has registered at the age of 16 or 17 years. What has he to do by the time he is 21 or 22 years of age? He has a journey of three stages: (1) elementary science, including chemistry, physics, elementary biology, and practical pharmacy; (2) anatomy and physiology; and (3) medicine, surgery, and obstetrics. If he passes his first two examinations all right he has two and a half to three years left for the study of the more purely medical subjects and it is perfectly appalling to think of the lectures and other work which the student must attend during the last period of two and a half or three years. I am persuaded that the laity has not the remotest idea of the number of subjects that the medical student has to tackle. Speaking generally, he has to attend lectures in medicine six months, surgery six months, obstetrics three months, pathology, bacteriology, pharmacology, and therapeutics three months, forensic medicine, public health, together with systematic practical instruction in medicine, obstetrics, and surgery; operations on the dead body, attendance on the practice of a recognised hospital for two winter and two summer sessions, post-mortem demonstrations for 12 months and clinical lectures on medicine and surgery. He must also attend clinical instructions in ophthalmic surgery, insanity, and diseases of women, and must act as clinical clerk and surgical dresser for not less than six months each and attend 20 obstetric cases. Instruction in vaccination and in the administration of anæsthetics and attendance at a fever hospital are also required.

I have said that the laity has no idea of the amount or of the variety of subjects to be studied. Another point that cannot be grasped or understood is why when our young friend has passed his three examinations, has done all his work, and has obtained his diploma from the Conjoint Board, he has not earned the legal title of "Doctor." I do not propose to discuss this question now. I only remark in passing that it seems to me that the British public will decide it—in fact, are deciding it now, for as a matter of convenience, if for nothing else, the title of "Doctor" is given to the medical practitioner nowadays much more generally than formerly, in fact, almost universally. Even in our journal I notice that the "Conjoint man" is styled "Doctor." I think, then, it will be obvious to everyone that great improvements have been made within the last two decades particularly, and that the general standard of medical education has risen considerably notwithstanding the fact that too much of the average student's time is spent on biological and chemical studies, and that too little time is given to ward work. I have ventured to point out what I consider to have been the main deficiencies of the past. I mentioned that in three particulars I thought the medical education was deficient—namely, (1) preliminary examination; (2) obstetric medicine; and (3) the administration of anæsthetics; and now, notwithstanding the great general advance all along the line, there is a pressing necessity for much improvement in these three respects.

1. *Preliminary education.*—At the root of all progress lies the improvement in the general and professional culture of those about to enter the medical profession. Can anyone deny that some of the preliminary examinations of to-day are too easy? They are not sufficiently stringent to secure a proper standard of culture. I do not think that any student should be put on the Medical Register unless he has passed the matriculation examination of the University of London, or one of equal stringency. In the good time coming, when all medical students will be undergraduates of a university, and will be obliged to take a degree in arts, this question of preliminary examinations will be solved; until then we must do the best we can. I think the advantages of a good classical education early, to a man entering our profession, cannot be over-rated. Nothing will, or can, make up for it; there would not be so many candidates deficient in ordinary spelling and composition if there had been a good classical education. To my mind there is nothing really superior to the old-fashioned Latin and Greek training but it seems hopeless to insist nowadays upon the retention of Greek. I think it is 25 or 30 years ago since, in the matriculation examination of the University of London, students were allowed to take up German instead of Greek. I venture to think that, as far as medical students are concerned, that was a retrograde step. I do not envy the student sitting down to learn

his anatomy who has not learnt even a little Latin and Greek; his Gray's Anatomy, perchance, in front of him, his Latin dictionary on one side, and his Greek lexicon on the other. The student, too, must not begin to specialise too soon, he wants a liberal education, an education for its own sake. This goes when the technical education begins—that is, when he leaves school or college to learn to be a "doctor." I was most interested to observe that about two months ago the Lord Chancellor, as warden of the Guild of Undergraduates of the University of Birmingham, when delivering his address, said he thought there was a grievous omission in that University—there was no chair of Greek—and he hoped they would clamour for such a chair and that Birmingham munificence would be effectual in procuring it.

2. *Obstetric medicine.*—With regard to the education in obstetric medicine and surgery, I would insist that its importance is not appreciated as it should be. This is a subject of which a very practical view should be taken. It is supposed that out of ten newly qualified medical men who leave hospital some seven or eight of them go into what is called, for want of a better name, "general practice"—become general practitioners. Now, what is the basis of general practice? Anyway, in a practitioner's early years it is obstetrics. The young practitioner who has his living to get is not long in finding this out and in finding out, too, that when he has to rely on his own knowledge and judgment he does not feel himself so well equipped as he thought he was. The remedy for this is obvious—much more practical work before leaving hospital. It is trifling with the subject for it to be deemed sufficient that a man should have attended not less than 20 obstetric cases in order to be signed up.

3. *Anæsthetics.*—I have a word to say about anæsthetics. The administration of an anæsthetic is a duty which may devolve on any practitioner at any moment almost. He should therefore feel himself quite capable to undertake this duty. I believe that good instruction is given at the medical schools in this subject at the present day. Anyway, there is a vast improvement in this respect as compared with what obtained in my student days. Then, indeed, unless a man was sufficiently fortunate to obtain his house surgeoncy he had no opportunity for any practical experience with regard to the administration of anæsthetics. For many years I have had unusual opportunities of observing the capacities of men, freshly qualified, who have come from various schools all over the country to fill the resident appointment at our infirmary and whose duties have included the administration of anæsthetics. There can be no doubt that in recent years men have been better up to this particular work. All the same I think that at the average hospital medical school the importance of a thoroughly good education in this department is not sufficiently insisted upon.

MEDICAL EDUCATION IN THE FUTURE.

Now that I have had my grumble at what I have ventured to call "deficiencies" in the medical education, both of the past and of the present day, I feel myself at liberty to say that though the average young medical practitioner in this country is a better educated man than he ever was, there is still room for improvement. But difficulties arise at once. If there be more subjects to be studied or subjects to be more thoroughly studied, how in the world is the time to be found? I have alluded to the tremendous amount of work the student has to get through, particularly in his last three years; is it right that it should be so, and is it possible that he can leave out some of the prescribed work and give more time to other subjects so as to learn them more thoroughly? The histology of to-day, together with physiology, so elaborated that its study must take up a much larger proportion of time than formerly, are subjects necessary enough, but are they not being pushed too far? The future practitioner is not expected to be a professor of physiology any more than every student can be a scientific physiologist. Just so with regard to bacteriology, which has become so much of a science that it might well in itself constitute a study for a lifetime. It must be studied, but its teaching, like that of histology and physiology, should be adapted more precisely to the actual needs of the practical physician or surgeon of to-morrow.

Perhaps the most startling fact of to-day in connexion with medical education is the apparently inevitable development of the specialist. The Medical Act of 1886, to which I have already alluded, provided that no one should be admitted to the Medical Register who has not been examined and is not qualified in medicine, surgery, and obstetrics. The so-called general practitioner is one who practises these three, many add pharmacy, and thus practise as apothecaries. Whatever line a man takes eventually he must have qualified as a general practitioner. One might be inclined to ask whether the general practitioner will, as such, continue to exist when one contemplates for a moment the subdivisions of work that are undertaken by the specialist. Thus we have not only special men for the eye, ear, spine, skin, throat, and so on, but for almost every organ in the body. How has this condition of things arisen? I think I can assign two main reasons: (1) the severe competition which awaits a well-qualified man when he is about to start in practice; and (2), though perhaps this ought to come first, the demand of the public. The public do not believe in universalism as applied to the practice of medicine but they pin their faith to some specialist who has taken up some particular ailment or organ of the body. An old fellow student of mine, now holding a high position as a consulting physician in London, told me that a lady of distinction brought her child for him to see because she had been given to understand that he was a specialist for children between the ages of seven and eight years and her child was just seven and a half years old! Seriously speaking, this condition of things has to be recognised; it has come to stay, whether for the greatest good of the greatest number is more than I can say; I can only hope so.

Of course, we all agree that some special departments in our profession are absolutely necessary; take, for example, that of public health. Now the supreme authority in sanitary matters in this country is the Local Government Board, with its chief medical officer and its medical and other inspectors; and all urban and rural sanitary authorities are required to appoint medical officers of health having registered qualifications in medicine and surgery. The duties of a medical officer of health are tremendous (in an average town such as Leicester, for example) and require a most extensive and liberal education. The man who would aspire to so honourable a post must specialise early in his professional life. Think what he has to do. The Local Government Board directs that he shall inform himself respecting all influences affecting, or threatening to affect, injuriously the public health within the district. He shall be prepared to advise the sanitary authority, worthy aldermen and common councillors alike, on all matters affecting the health of the district. He shall direct and superintend the work of the sanitary inspectors. He has to be able to give a decided opinion as to whether some articles (meat, game, fish, and the like) when exposed for sale are fit or unfit for food. He has to write numberless reports on all sorts of subjects and to report every quarter to the Local Government Board, and oftener if there should be any epidemic. He has to prepare an annual report up to the end of each December containing tabular statements without end with regard to sickness and death-rate. In matters not especially provided for the medical officer of health must obey the instructions of the Local Government Board and the lawful orders or directions of the sanitary authority. Since I have been in practice it has become necessary to notify to the sanitary authority all cases of contagious diseases and the medical officer of health is expected to be able to decide immediately in doubtful cases of infective disease; for example, he must decide at once whether a case be one of modified small-pox or of severe chicken-pox. He has, in fact, to constitute himself a "final court of appeal." It is now suggested that his duties should be added to in connexion with the supervision of midwives under the new Act.

Now surely the education of a man who is to carry out these duties thoroughly well must have been very special—in fact, directed towards public health *ab initio*. Although it has nothing to do with my argument, I may here express my firm opinion that our Association will be doing a great work if it will use its influence to favour the principle or policy of "fixity of tenure" as applied to competent and well-educated medical officers of health. The present conditions of service are not satisfactory, to say the least.

As another instance of special work in our profession, work requiring special aptitude and education, I would refer to the insane. In these large asylums which unfortunately seem to have sprung up, and are springing up, all over the country and which are harbours of refuge for the most afflicted and the most to be pitied of our

fellow creatures are to be found men of our calling who have devoted, men who are devoting, their lives to the improvement of the treatment and surroundings of those unfortunate people intrusted to their care. Within the last half century the treatment of the insane has been revolutionised—improved in every possible way. This has been due to the specialists—to men who have made the care and treatment of those of unsound mind their special study. And so I might go on; it really seems as if the medical profession is soon to consist of a series of professions and that those who enter it, if they intend to make a decent living, will have, quite early in professional life, to decide each one on his particular line. Of course this is not really so.

The two illustrations I have given of specialism in public health and lunacy are illustrations of legimate specialism, but that there is a type of specialism existing with which we are not all in accord no one will deny. A healthy specialism has been defined as "a practice of a special branch of treatment, a study of a special domain of knowledge of a natural and gradual growth in the varied experience of a practitioner." Something like this has always existed in medicine, greatly to its advantage, and is very different from the specialism of what I have heard described as the mushroom growth variety, where chicanery and humbug reign triumphant. There can be no doubt that honest specialism has advanced the science and art of both medicine and surgery, particularly during the last 30 or 40 years. But, as has often been observed in many other lines of human activity, all subdivision of labour, while advancing the best interests and development of the people at large, has great disadvantages for those engaged in the work. This is seen constantly in many industrial pursuits, when mechanics or workmen become almost like machines, devoting their constant toil and energy to one small section or subdivision of work, and are relatively useless in regard to other portions of the same industry. There is, then, the danger that this modern development of specialism may tend to produce a narrower type of medical men who, like the mechanics, will only know their own department and work, and be unable to understand properly the relations of special portions of the field of medicine to others or to the system at large. Whether this may be so or not, the main point to keep in view, while always admitting that specialism is with us, is "whether or not the practical result is good?"—first, as affecting the public, and, secondly, as affecting the profession. To both of these questions I unhesitatingly say Yes, and from my experience of practice and patients I make bold to declare that the public might derive more help and benefit than they do if they knew what to have and what to avoid in the way of specialism. Now here is the opportunity and a well-defined duty for the well-educated practitioner. He will see to it that his patient shall not become (if he can help it) a patroniser of the false specialist (legally qualified or not). After all, it seems to be a matter of trust, and just in proportion as you have young men coming thoroughly well trained from the medical schools so you will have a corresponding amount of confidence on the part of the public. The way in which specialism is affecting the profession has already been alluded to and I only say again that the chief danger seems to be the development of a narrower type of medical man. I think before leaving this subject of specialism that I may take the opportunity to express my regret that nothing seems to be able to be done to check the advertising specialist—enterprising advertisers who claim to cure diseases without seeing the patients (claim to do, in fact, what is impossible of accomplishment) and so use the daily press and religious and magazine publications for fraudulent purposes, for that is what it amounts to. In America, I think, there are greater sinners in this respect than there are here but in England they are bad enough and it is a matter of painful surprise that proprietors of high-class newspapers and magazines can allow such rubbish to be shot into their advertising columns. There must have been great defects in education somewhere or such a condition of things would never be tolerated.

I have intimated that, to the best of my judgment, the average young practitioner of to-day is a better man than he was 30 or 40 years ago, but I want him to be better still, to be more thoroughly equipped, and would not the public gain immensely if this were so? The university education is the first pressing necessity. I have alluded to the good time coming when all medical students shall be undergraduates of a university and shall have to take a degree in arts. I hope it is not a dream, but that another generation will see its accomplishment. It is undoubtedly the fact that medical men of a former generation whose sons are now entering the profession send them, if they can possibly afford it, to one or other of the universities; again, when the student's time is over in the five or six years, why should it not be obligatory that he should hold some responsible resident appointment for six or twelve months before going into practice? As a matter of fact, it is more often so than not, but now that there are more opportunities for resident appointments it would be a wise regulation that every man should have this experience. I have known many men who have regretted in after years that they had no such opportunity. I may perhaps offer one more suggestion to the newly qualified practitioner, and that is that he should at once join the British Medical Association. The British Medical Association, as I have mentioned, was founded at Worcester in 1832. At its first annual meeting, a year later, it numbered 140 members. Its success has been very marked. I think that there are some 20,000 members, but the success will not be complete until every registered practitioner becomes a member. The British Medical Association exists for the promotion of medical and the allied sciences, it also exists for the maintenance of the honour and the interests of the profession. I will not labour this point now, I may have another opportunity, but I would earnestly invite every newly qualified practitioner to join our Association as a matter of course.

I suppose all of us when students indulged more or less in "hero worship." I am sure I did and I have already mentioned the name of one of my heroes. I mean the late Sir John Simon. He was appointed lecturer on pathology at St. Thomas's Hospital as far back as 1847. He was then 31 years old and on that occasion he gave an inaugural address and I propose to conclude my remarks to-night, which I sincerely wish had been more worthy of this distinguished audience, by quoting some of his final sentences. Mr. Simon—this genius, surgeon, pathologist, and poet-philosopher—was addressing a very learned audience, not only students. He said:—

> But finally, gentlemen, I cannot forget, nor can I refrain from reminding you, that the course I invite you to run is no beaten track of traditional knowledge. The science which we have jointly to study is yet but in its first dawn and immaturity and the terms of my commission here have imposed on me as an especial duty to institute researches for the purpose of unveiling the latent processes by which disease is established and the curative processes by which it is removed. To coöperate with me in these researches and go far beyond me in achieving their great results I earnestly invite and exhort you. I bid you enter on a field of science where industry must have its reward in an unparalleled harvest of discovery—a field now first beginning to bear fruit, with promise of unmeasured fertility. If you have energies in you, beyond the mere care for sustenance, how can you better or more nobly bestow them than in original investigations which have nature for their field and the alleviation of human ill for their final purpose? It is in no transient access of enthusiasm, but in the deepest conviction of my judgment, that I affirm the supreme dignity of such pursuits; that I affirm them not only to be in themselves the loftiest occupation of the human mind, but to include the largest and most enduring rewards. To be the successful interpreter of nature, to discover her hidden laws of operation, or by your personal exertions to augment the permanent resources and utilities of medicine—this implies as its result to be remembered so long as man and outward nature coexist; *to be remembered as the ornaments and benefactors of your species.*

INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.—Of 19 candidates who entered for the intermediate examination held in July 12 passed: J. W. Agnew, H. G. Dale, James Dick, jun., W. P. Hayworth, I. M. Heilbron, R. F. Innes, S. Judd Lewis, A. J. C. Lickorish, F. L. Okell, R. P. Page, H. J. B. Rawlins, B.Sc. Lond., and D. R. Wood. In the final examination for the Associateship (A.I.C.), of five examined in the branch of Mineral Chemistry three passed: J. B. Hoblyn, Assoc.R.C.Sc. Lond., G. W. James, B.A. Oxon., and H. H. Kingdon, B.A. Oxon.; of six in Organic Chemistry four passed: A. W. Bain, B.A., B.Sc. Lond., T. W. Cheke, J. Stuart Hills, and D. F. Twiss, M.Sc. Birm.; and of nine who entered in the branch of the Analysis of Food and Drugs and of Water, including an examination in Therapeutics, Pharmacology, and Microscopy, four passed: R. W. Blair, Assoc.R.C.Sc., I., P. H. Carpenter, J. A. Goodson, and S. Summerson, B.Sc. Lond. One candidate passed an examination for the Fellowship (F.I.C.): E. F. Harrison, B.Sc. Lond.

Address in Medicine

ON

MEDICINE, PRESENT AND PROSPECTIVE.

Delivered at the Seventy-third Annual Meeting of the British Medical Association on July 26th, 1905,

BY HENRY MAUDSLEY, M.D. LOND., F.R.C.P. LOND.,

CONSULTING PHYSICIAN, WEST LONDON HOSPITAL.

[IN the introduction to his Address in Medicine Dr. Maudsley disclaimed any intention of reciting the story of its victories. His desire was to indicate in a general way how with advances day after day its horizon widens and its expectations of service to mankind increase. He also inveighed strongly against the present practice of inventing and multiplying portentous words of Greek or Latin or mixed root to describe simple things and then proceeded as follows:—]

Looking out on the present state and prospect of medicine it is obvious that its future work will be mainly to prevent and to stop the beginnings of disease—to take good order that it shall not come and if it do come to prevent functional disorder from lapsing into fixed disease, which must be given over either to the surgeon's knife or to the shears of Atropos; for to despise the little things of functional disorder is to fall by little and little into organic disease. Now preventive medicine has two plain ends, the one of which is being pursued with signal success, the other not duly studied. The first, by all fit measures and precautions to defend the body from those attacks that come from without, whether in gross form or as invisible microbes floating to and fro on earth to assault and to hurt it; the second, to obviate the predispositions to disease which lie within the body by giving it inward strength to resist its subtle, ever-present, ever-active enemies—in fact, to teach it to die at last from old age as every medical man ought theoretically himself to do.

The success of preventive war against disease is manifest in the decrease of such diseases as plague, typhus and typhoid fevers, small-pox, malaria, and hydrophobia. Here medical art, having learnt definitely what it has to fight against, employs definite measures of defence and attack for a definite end. So it has relinquished the fearful bleedings, purgings, vomitings, and druggings once in fashion. Think for a moment on what happened when medicine blindly attacked symptoms at first sight, on the sort of treatment, for example, which a poor wretch suffering from scabies underwent before the insect of that disease was discovered. What mischievous measures again were employed to provoke the pouring out of "laudable pus" where no pus should be? That the practice of warring against symptoms, which are effects and signals, perhaps useful outlets, of the disease by trying to suppress them instead of striking at the cause and letting the symptoms alone is now obsolete, would be too much to say; it is long since the violent lowering of high febrile temperature by frequent doses of antipyrin was the fashion; and still, I fear, large use is sometimes made of opium, chloral, and their like to quench the fire of acute mania, notwithstanding that, smothered for the moment, its flame blazes more fiercely afterwards to the prolongation of the disease and peril of the patient's life. A lesson of human history which the history of medicine signally confirms is that error does not become truth because it is repeated thousands of times by many thousand persons. Might not the lesson haply be applied to the valuation of some current medical theories? I suspect that if a competent thinker, constituting himself a sort of *advocatus diaboli*, were to write a book entitled "Medical Doubts," setting forth reasons why some accepted truths may not after all be true, he would do a real service to medical science.

For the adoption of requisite measures to ward off disease and nip it in the bud the medical man does not get full and fair opportunities. Summoned to the bedside of one actually ill, the disease having got its hold, he sees the sick man for the first time when, being sick, he is not his true self. Ignorant, therefore, of the patient's constitution and habits, of his temper of body and mind, all which count for much in the prescription of sound rules and directions, he is not so qualified to counsel wisely as if, called in beforehand to advise against sickness, he possessed the necessary elements of comparison between the sound and unsound man to instruct treatment. For it is a diseased person, not an abstract disease or absurdly called morbid entity, which he has to handle; and in most persons, I imagine, there is present the weak organ or tissue which is liable to fail in function under strain, and in the end begins to die first. To treat the same disease in the same way in all persons is to do much like the tailor who supplied all his customers with clothes made to the same measure, without taking their particular measures. If medical men give physic but seldom take it—as the old gibe is—may not that be because, knowing something of their own constitutions, and of the causes and beginnings of disease, they adopt timely measures of precaution and a system of treatment sorting with their habits and temper of body and mind?

The second aim of preventive treatment—thrown into the background now by the eager quest of the microbe—is to obviate the predispositions or tendencies to disease which lie within the organism. For such predisposition exists, whether or not, disliking the word, we like to speak instead of a constitutional soil suiting the microbe; facts not being changed by being named differently, though men are very apt to think so. Not to speak of the want of a full and exact study of radically different types of constitution and of their respective qualities and disease tendencies, of which little note has been taken since the abandonment of the old doctrine of temperaments, there is a strange want of any study of the effects of the interbreeding of parental disease tendencies upon the constitution of the offspring. Might not some good come from systematic inquiries into the production and elimination of constitutional disease tendencies and disease immunities by the marriage unions of different tendencies and immunities? When a person has a disease unlike that which either parent had he may still owe it to them, variations occurring in morbid heredity just as they do physiologically. The case, of course, is not one of the breeding together of actual diseases—no metaphysical conjunction of morbid entities—but of two physical organisms tending to go wrong in their respective ways. What is the morbid outcome of the union of a phthisical and an insane diathesis? As bad as it well can be, I should say. Or of a diabetic and a phthisical constitution? What is the constitutional disposition, if any, most likely in breeding to cancel a tendency to cancer? For, eager as the search is for a cancerous microbe, one may doubt whether it has yet been tracked to its late suspected lair in the nucleus of the cell. Having regard to the local invasions and distributions of cancer, its provocation by local irritation, its more than accidental heredity, and its quiet settlement in the system without feverish tumult, for all the world as if it felt itself no alien intruder but constitutionally at home there, it seems probable that its unruly proliferation of cells, however provoked, betrays the awakening to activity of the silent memories of ancestral germinal growth. How best mate the person having a native tendency to insanity so as to cancel it in the progeny, or, better still, convert it into a good evolutional variation? For that is what happens sometimes, one child of a neuropathic family dying in a lunatic asylum, while another rises to eminence as poet, painter, orator—great man of some kind. Why and under what conditions is the epilepsy of one generation transformed into the insanity of the next generation? How is it that diabetes and insanity go along together in some families or alternate in them through generations? When medical science can answer these and like questions it may then dictate some wise eugenic rules. Meanwhile in the uncertainties of things we do well to trust—and we can have no surer trust—that *vis medicatrix naturæ* by which, health being the normal and stable, disease the accidental and passing condition, it comes to pass with the race through generations, as with the individual in his brief life, that the organic strain constantly is to rectify deviations and to bring disorder back to order, so keeping mankind in continuance, if not progress, of being for its appointed time on earth.

[Here Dr. Maudsley discussed whether in the marriage union of disease tendencies a new disease is ever born and concluded that there is a limit to the capacity of a definitely constructed organism to go wrong and suggested that the organism may now have exhausted its morbid capabilities. He continued:]

In the work of fortifying the body to resist inroads of disease the most simple means are the best and, as Hippocrates said, it is in the use of simple means that great physicians especially differ from others. Pure air, clean and proper food, regular and adapted exercise—these sum up the measures prescribed as proper to give inward strength and to keep it in sound and supple activity. But they are not quite all, for they leave out mind; and as a sound body is the condition of a sound mind so the wholesome exercise of a calm and well-disciplined mind, ready to meet all changes and chances with composure, ministers mightily to health of body. Corroding passions and unruly affections, such as anger, envy, jealousy, revenge, lusts, and fears of every kind, are a hurt to body as well as mind, so that rules of wise mental culture and exercise are an essential part of the regimen of health. When one contrasts the simplicity of the salutary rules with the usual stolid violation of them it might seem that men were in love with disease, such pains do they take to provoke and nourish it. Knowing well that fresh air is a good thing they go on in practice to shut it out lest a stray draught come their way; so little care do they take to eat only what is needful that they habitually eat twice as much as is good for them; so reckless are they of what they drink that they persistently abuse alcohol to obtain temporarily an ideal relish which the insipidity of their real life denies them; so perfunctory is the routine of daily exercise they take in dull mechanical pacings that they rehearse their lives by rote, never bringing into full use half the possible movements of their bodies and less than half the faculties of their minds; so little mindful are they of the need of rest to overworked function that, so long as sexual power lasts, they spend it recklessly in the gratification of lust, thinking no harm provided the exercise be connubial.

That the body is a complex reflex mechanism is now a familiar notion, strange and ignored as it was when Descartes first conceived it more than 300 years ago, expressly setting it forth then in a series of distinct propositions which, as Huxley said, constitute the foundation and essence of modern physiology of the nervous system. The conception, untimely born, fell into utter neglect. Even now, after so many years, but little has been learnt scientifically of the manifold bodily reflexes or sympathies—motor, sensory, secretory, and nutritional—although everybody might make the needed observations on his own person, and a full and an exact knowledge could not fail to be put to excellent use in practice? How is it that a patch of psoriasis on one leg, although itself left untouched, is cured by curative applications to a similar patch on the other leg? Certain it is that a clear conception of the reflex mechanism of the organism as a whole and an exact knowledge of the reflexes or sympathies of its parts will yield much profitable use, not only through systematic and skilful employment of kneadings, rubbings, pressings, and such-like manipulations and appliances whereby an infirm organ may be more benefited sometimes than by many, or perhaps any, drugs, but also by regulated exercises purposely adapted to bring into wholesome action all the muscles of the body, whereby every muscle may be made to contract and every minute vital channel kept open and so disease prevented or stopped at its outset. Moreover, as the "life of relation" (using Bichat's term) from the cradle onwards is the organic education, mental and physical, of a reflex mechanism whereby that which is consciously and laboriously learnt is expressed easily and automatically—such gradual instruction being organic construction—a constant aim ought to be to fashion it well, as well to know how it works best and to keep it in the best working order.

[Dr. Maudsley then pointed out that after all the application of the principle of the reflex mechanism of the organism was not in the end due to Descartes but to those who, coming after him, worked laboriously to establish and confirm it, and that science owes a service of thanksgiving to its obscure worthies like the Church holds to its uncanonised saints on All Saints' day. He continued:—]

The present posture of medicine in relation to tuberculosis shows a wise recognition of the necessity of fortifying the body inwardly to resist its outward enemies. The noxious bacillus has been caught, it is true, but its capture has not been followed by the discovery either of a protective serum to immunise the body or of an antitoxic serum to extirpate the bacillus in it. Bacilli, like the poor, we shall doubtless always have with us; nor can we ever hope to keep them out of the body, as surgeons once fondly hoped to do with their carbolic sprays, and food sterilisers would fain do now, notwithstanding that they may thereby destroy one half the nutritive value of the food; that a recent observer has isolated more than 100 different kinds of bacilli in the juices and deposits of the human mouth; and that another observer has found in the healthy intestine a large number of organisms intermediate in character between the typical colon bacillus and the typhoid bacillus. Here, I think, one may justly regret a want of sobriety in some medical statements on the popular platform in consequence of which the public have jumped to the conclusion that because the bacillus has been discovered phthisis is curable, the old notion of its heredity erroneous, the objection to phthisical marriages obsolete, and the right thing to do forthwith to dot the land freely with sanatoriums, and so gain an immense addition to the life-capital of the nation. But is phthisis so very curable in these special hospitals, nowise endued with any special grace, I imagine, by reason of their being called sanatoriums? Adequate statistics are not yet available, but thus far the modest outcome of experience seems to be that many patients who are sent in the early stage of the disease recover, if they are kept long enough; that most of those in a more advanced stage improve while there, frequently relapsing afterwards; and that those who are badly diseased ought not to be sent at all. Is that, after all, to say much more than might be said of sensible treatment before the erection of sanatoriums? In the end, means must be found to mend the fit constitutional soil and breeding ground of the bacillus, if it is to perish of inanition for want of its human food. The startling proposal that subsidary institutions should be set up, in which those who are not cured may be taken care of for the rest of their lives, can hardly please the burdened ratepayer who may think that a nation's chief aim ought to be to have healthy bodies and minds which can endure all changes and extremities, not such as must be protected artificially from them.

Can we, again, eliminate the predisposing influence of heredity? Actual tubercle may not be inherited—nobody thinking clearly on what he thought ever thought that it was—but the poor constitutional soil inviting and suiting the bacillus still passes from parent to child; and we do not get rid of the essential fact by changing the name. Do we, indeed, in the end get such a valuable addition to the life-capital of the nation? It is easy enough, noting that some 60,000 consumptives die annually in England and Wales—I do not vouch for the figures—fancifully to rate the value of each life at an arbitrary figure and then by multiplication to make an appalling computation of the loss to the community; but is the loss so real? Might not the ultimate cost to the commonwealth be greater were these persons to go on living and breeding in it? An addition to the nation's life-capital is all very well, but the quality of the capital counts for a good deal and it will not count for much if it is not realisable. What does the realisation amount to in practice? The patient who comes out of the sanatorium recovered or improved must usually go back to his former work and surroundings; he cannot adapt the world to the weakness of his nature and its ideal needs, but, like other mortals, must adapt himself to the rude world and perforce do much as they do. That is what he quite naturally does; returns to his work and his old ways, perhaps gets married if he is not married, and begets children who can hardly have the confidence of a good descent. Meanwhile, when he relapses, he sows bacilli broadcast, thus multiplying such life-capital to fulfil its ordained function in the universe, that apparently being to make away with weak mortality.

However, I shall not pursue a tender subject further. Human life is so precious nowadays in all its states—phthisical, insane, criminal, inebriate, and the like—that it is the pious duty of the social organism not, as the healthy bodily organism tries to do, to extinguish or extirpate a morbid element but to absorb it into its system, growing sympathy being the vital principle of social growth. The medical man, at all events, can plead his duty to his individual patient; he is not sponsor for the nation's future; that he leaves to those whose business it is. Still, a sceptical-minded person—he would be called a cynic—looking to the ultimate issue of such morbid absorptions, might be tempted to exclaim with the prophet: "My people love to have it so, and what will ye do in the end thereof?"

To the clear and distinct conception of the body as a complex reflex mechanism, in which there is mutual intelligence

of parts with entire community of interests, we have to add the conception of it as a vital laboratory of the most complex chemical substances and processes in the world engaged in the most condensed and subtile activities. We easily think of it as a wondrous community of innumerable cells that have undergone various differentiations to form different tissues; but when scientific imagination goes deeper into the minute subtilties of matter a living cell seems but a gross thing. Concentrated within its little body are subtile and intense forces, continuously and quietly working, which, if let loose in large explosive display, might suffice to blow up the chemist and his whole laboratory. No wonder, then, at the increasing knowledge of the important part which chemical activities play in vital processes. Considering closely how many different chemical actions enter into each of the various bodily functions of the body—assimilation, respiration, secretion, excretion, generation, sensation—all going on harmoniously to maintain a unity of being, yet each liable to incalculable disorders, the eternal wonder is that it holds together so long and so well as it does. In the performance of these functions not the whole organism only but every cell of it generates poisons which would be fatal if they were not got rid of. The breath of man is fatal to man; his excretory products would poison him if he did not get away from them or them away from him; the fatigue of an organ or tissue is not due to the using up of its energy and matter only but also to the toxic products of waste which pass into the blood stream and are hurtful when they are not perchance of economic use to other organs or tissues. The proteid molecule of food suffers decomposition into a dozen intermediate products before its elements are built into living tissue and at every stage of the series there is the possibility of a pernicious vitiation. The various kinds of enzymes or ferments which work in the processes of metabolism, each producing its particular chemical change, are liable to their several toxic mischances. In its normal state the intestinal canal contains numerous poisons and possibilities of poison—mucus, albuminoids, alkaloids, and aromatic and biliary substances. Thinking on the many risks of self-poisoning and on the exact chemical agency requisite to counteract each of them scientifically, it seems a lawful conclusion that more medical good will be done for the most part by simple and general measures to keep the body in health and strength than, according to Voltaire's witty sneer, by pouring drugs of which we know little into a body of which we know less.

Besides the subtile chemical poisons of physiological disorder medicine has now to tackle the special toxins generated by the various hostile microbes and the far-reaching damage which they do—so far-reaching sometimes as to have no end but the end of the life which they end. The syphilitic virus, whether microbic or not, is the proclaimed cause of tabes dorsalis and general paralysis. Years after his specific infection and its supposed cure a man is attacked by the flashing pains portending a tabetic degeneration of his spinal cord or exhibits the inflated feelings and ideas preceding the cerebral devastation of general paralysis, both diseases going down thenceforth to their fatal endings. Strange to think that one kind of microbe can be the latent cause of the variety of symptoms, having regard to their differences in different cases, the elective affinities for particular organs, and the long suspensions of activity during which it must lie dormant, only to awaken from time to time to virulent fury. One may suppose, perhaps, that the specific virus, however generated, affects injuriously the stability of the nerve molecule, an effect nowise apparent while the person is strong and well but manifestly destructive when vitality of nerve element is weakened by abuse of function or other cause. For it is with elements of tissue as with individuals: to be weak is to be miserable.

In the discoveries of microbic toxins and their antitoxins and of the immunising virtues of antitoxin serums there is a discernible promise of scientific therapeutics when chemical agents will be used, not empirically, but with scientific precision for a definite end: an optimistic outlook all the more legitimate, seeing how the chemist in his laboratory, by substitution of atoms in molecules, now creates new substances which, so far as we know, never existed before in nature and some of which have proved to be of good medical service. Thus creating, our hope is that he will on the whole turn out to be a benevolent creator by inventing more beneficent than maleficent compounds for human use; range himself, in fact, on the side of the good genius of the universe. The rapid progress of chemical research, steadily sapping the barrier between organic and inorganic nature, has now reached the very confines of life, even forecasting an ultimate analysis of those subtile physico-chemical processes whose mysterious unity of action in the organic molecule we provisionally call vital force. Six years ago a president of the Chemical Section of the British Association for the Advancement of Science affirmed that, no matter how successful the reduction of vital to physico-chemical activities, a residuum would always evade such explanation and require an intelligent directive agency; but the latest researches of *stereochemistry* into enantiomorphous substances seem to show that the enantiomorphous agency working in the dead universe may dispense with the need of the metaphysical assumption. However that be, certain it is that day after day, with every step forward in physics and chemistry, proofs accumulate that all vital processes rest at bottom on physical and chemical processes of the same kind—although raised to a higher power—as those which take place out of the living body.

Deep as the chemist penetrates into the subtilties of matter, there is a yet deeper order of inquiry into the mysteries of the infinitely little and its most potent forces. The discovery of radial rays, perpetually thrown off in radio-active dissociation with an energy greater than that liberated in the most violent chemical decompositions, has taught us that the atom is not a simple thing but a spot of positive electrification within which swarms of negative electrons whirl their mazy rounds with inconceivable rapidity. Thus the chemical elements, each with its individual properties, originate in differences of the number of electrons and the figures which these take as they whirl, and all matter is resolved at last into moving electric charges—material nature simplified into electricity and ether. Remote as such speculation appears to be from the realities of life the story of applied science furnishes many striking instances of theories so abstract as to seem of no conceivable use, which have, nevertheless, in ways quite unexpected, effected extraordinarily useful revolutions in practice; and it is not therefore unlikely that full and exact knowledge of radial energy and of its mode of action on the vital processes may instruct and guide to yet undreamed success the radial treatment of disease, some fruits of which have already been empirically gathered.

Here, then, thought again reaches a point where the domains of the living and the non-living are no longer separated by a chasm; where, indeed, one might think (if one did not suffer thought to be governed by words) that the domains of matter and life, even of life and spirit, meet, the material being sublimed into the vital and the vital into the spiritual. That all divisions of science shall gradually be effaced, even that which metaphysics has fixed between bodily and mental life, the partitions being received as conveniences of thought, not as sections and separations of substance, is inevitable, if all nature be one process of orderly evolution and the function of science be to find it out. The absolute barrier between mind and body set up by metaphysics has in truth been a great hindrance to the progress of positive science. That mind works upon body to alter the rate and quality of its functions and, conversely, body upon mind to affect its moods and thoughts is a truism, but a truism the full truth of which is not realised because of the habit of setting mind and body over against one another as separate and independent entities. Between material energy and consciousness there is a gulf, it is true, just as there is between one mode of perception and another, but it is not possible in biology to set up a partition between mind and body. Mind works in every function of the body; a sound body is the foundation of a sound mind; and the lunatic is lunatic to his finger ends. Moreover, they surely disclose one another, although by more subtile writing than we can yet read. It is not by the medium of words only that thoughts and feelings are expressed. They are expressed by other motions that are sufficiently distinct to be perceptible by sense—by subtile motions of look, gesture, gait, attitude, and the like; the differences of which in different persons are characteristic exponents of natural differences of thought, feeling, and action. Mind does not merely affect the body, it permeates its constitution and is delineate in the map of it. On the other hand, there is not a function of any organ of the body which does not enter into the constitution of mind; the reproductive glandular function notably revolutionises its thoughts and feelings during adolescence; the defective thyroid maims and lames it; an atom or

two going astray in metabolism precipitate it from the height of joyous vigour to the depths of impotent despair. No purposive movement could ever be made but as the outward discharge of mind incorporate in fit structure; for the cleverest man in the world could not button a button, even stir a step, had he not learnt the art by repeated practice—had not, in fact, patiently organised intelligence in proportional, that is *ratio*-nal, structure which thereafter discharges itself automatically. When the intelligent act, once learnt and fixed, is done unconsciously exactly as it is done consciously, it is absurd to say that there is mind in the one act and not in the other. The organic process is simply one of doing consciously in the individual lifetime that which has been done gradually in the formation of animal and human instincts by evolutional adaptation through the ages. In both cases the result is structually consolidated reason, mind statical. The intimate and essential unity of mind and body is, of course, pathological as well as physiological. When the paralysed patient's power to speak or walk is restored by a strong impression made upon mind by a miracle-working shrine, or by the suggestion of a skilled hypnotist, there takes place a physical excitation of the suspended function of the nervous tract or area in which the belief and will to act were implicitly organised. For the seeming miracle to occur there must, naturally, be mutual sympathy and belief in its success; an interposed screen of doubt or disbelief prevents the excitation or inspiration of the requisite faith. To ascribe the result to imagination is one sort of provisional explanation. Certainly, as imagination may kill, so also it may cure. But that, after all, is to explain nothing—is to do little more than to make a faculty of a word.

What is the nature of the subtle transfer of energy between he active and the recipient mind whereby the former excites he latent belief and energy in the latter? Without subscribing to the strange stories of telepathy, of the solemn apparition of a person somewhere at the moment of his death a thousand miles away, of the unquiet ghost haunting the scenes of its bygone hopes and endeavours, one may ask whether two brains cannot be so tuned in sympathy as to transmit and to receive a subtile transfusion of mind without mediation of sense. Considering what is implied by the human brain with its countless millions of cells, its complexities of minute structure, its innumerable chemical compositions, and the condensed forces in its microscopic and ultramicroscopic elements—the whole a sort of microcosm of cosmic forces to which no conceivable compound of electric batteries is comparable; considering, again, that from an electric station waves of energy radiate through the viewless air to be caught up by a fit receiver a thousand miles distant; it is not inconceivable that the human brain may send off still more subtle waves to be accepted and interpreted by the fitly tuned receiving brain. Is it, after all, mere fancy that a mental atmosphere or effluence emanates from one person to affect another, either soothing sympathetically or irritating antipathically? Think in this relation on the extraordinary (so-called) magnetic personalities which some persons possess, and, again, on the contagious fire of emotion which spreads quickly and gathers volume in a crowd of people, inflaming them, as the case may be, either to deeds of mad fury or to corybantic displays of religious fervour.

Now, as fuller and exacter knowledge of the reflex mechanism of the body adds to our means of preventing and curing its disorders, and increasing chemical knowledge points to scientific therapeutics, so may a just conception of the subtilties of the forces at work in mental action inspire a more advised and methodical use of the resources of mind to cure diseases of body. Is it not from neglect to employ such intelligent measures that patients fall into the hands of nature-curers, Christian scientists, mesmerists, and the like faith-instilling persons and are sometimes cured when drugs have failed? And is it not to the use of such means, albeit not consciously formulated, that the popular practitioner, whose small medical knowledge is the smallest part of his skill, gains the coöperative belief of his patient and owes his fashionable success? It is all very well to say that people are ignorant, foolish, credulous. Of course they are. The world would not have gone the way it has gone were the immense majority not gladly beguiled; but if you would influence the fool for his good you must enter by sympathetic imagination into the fool's mind and discern the motives by which it can best be moved. And it is still the fact that, as Cicero said of places in his time, every place swarms with fools. Sick persons, even when not foolish, are notably sick in mind and mostly need a mental tonic to stimulate their weakened vitality, such inspiration serving sometimes to animate the tissues to a strength of vital resistance from which the noxious bacillus retreats baffled—yes, even though it is greedy there and scents the fit soil it does not find the fit climate. Few drugs are more helpful than hope, more deadly than despair.

If the procession of nature be an orderly evolution of things up to the mental organisation of man, itself slowly perfected through the ages and still perfecting, and the growth of man's understanding and power takes place through growing knowledge and observance of its laws—being a growth of nature through him a part of it—medical science will obviously play a large part in the future improvement of the race. In his desire to found a science of *Eugenics* by discovery of the laws of good breeding in families Mr. Galton would have well-constituted persons chosen to mate with well-constituted persons, looking forward to the establishment of a suitable authority to grant certificates of good health of mind and body to those who propose to marry, so that eventually a superior human stock may gradually be produced. Inasmuch, however, as the inferior persons would go on breeding after their kind the result might be two species of human beings, a result clean contrary to the philanthropic principles of a democratic age, which aspires to embrace the lowest specimen of the race as a man and a brother—in heaven ultimately, at all events, although not for the present on earth. The problem of human breeding, however, is far from so simple as that of the lower animals, both as regards the forces concerned and the nature of the desired product. Man is a very complex organic mechanism, framed to function, not like horse or dog in certain set ways, but in fine thoughts and feelings, these being the superior essence of him; and it nowise follows that an otherwise perfect physical constitution goes along with a perfect mental constitution, or that you may not breed a mind of extraordinary quality from a poor and lame body. The owner of racehorses, basing his trust on a law of heredity, no doubt does wisely to give a thousand guineas for a yearling colt of a distinguished sire, when he would not give a thousand shillings for the offspring of a poor sire, but it would hardly be wise to buy the offspring of a human genius at a like proportionate cost. In the human organism, with its varieties of changing moods and passions, there are delicate influences affecting gravely the processes of reproduction which invalidate conclusions drawn from observation of the comparatively simple organic machines which animals are; for these subtile-potent forces of mind assuredly constitute a medium which acts powerfully on the formative processes of the delicate germ; not otherwise than as on a lower and coarser level slight experimental changes in the physical medium are now experimentally shown to effect strangely the development of the germs of sea-urchins, caterpillars, and the like.

Complex and uncertain as the matter is in the human case, it is nevertheless certain that there are laws of mental breeding yet to be discovered and it is no more unlawful to inquire scientifically into the nature of vice and sin than into the nature and action of poisons. Hatred is as natural as hunger and stands in no less need of scientific explanation. That moral qualities are not dependent upon physical constitution, have no physical connexion whatever, is an opinion which, although fostered in the supposed interests of morality, is really a hindrance to the growth of practical morality. If one thing is certain it is that all wrong-doing, whether error, vice, or sin, is avenged on earth; not always, it is true, on the individual wrongdoer, but somehow, somewhere, on others bound together with him vitally in the social system. Could men be taught to know and knowingly feel this simple truth they might be more heedful of their thoughts, feelings, and actions than they are apt to be while they ignore the stern law of vicarious punishment on earth and relegate the recompense of their doings to another life. Even for his own sake the evildoer might pause in his course if he bethought himself that the habit of a life is the organic fashioning of a character and that a persistent system of bad feeling and conduct means a steady deterioration of character—means, in fact, the physiological undoing in the mental organisation of the fine filaments of thought and moral feeling, the delicate nervous tracery, which have been the gain of human progress through the ages and, being the latest and finest organised, are the first lost in every form of mental degeneracy.

A sobering thought, too, it might be that the mischief does not end with the individual life. From that which is evil what good can come? In the moral as in the physical world the present is the natural product of the past and the determinant of the future. Moral deterioration in the parent is pretty sure to be visited somehow upon the mental constitution of the children and the children's children, for grapes do not grow on thorns in the moral any more than in the vegetable world, and it is, I believe, the moral or affective, not the intellectual, nature—the tone of feeling infused into the forming germ—which counts most in human heredity. If that be a lesson which medical research will some day demonstrate scientifically one can heartily endorse the saying of Descartes, who was well versed in the physiology of his time and was himself a diligent dissector, that if mankind is to be perfected, the means of perfecting it must be sought in the medical sciences. For my part I cannot doubt that a positive science of human nature, as it gradually emerges into form, will make it ever more and more plain that, by operation of natural law in the process of organic evolution, sound thought, good moral feeling, and devotion to a high ideal are the solid foundation of health and wealth of mind in individuals, in families, and through families in nations; that there was, indeed, a measure of scientific truth in the saying of the Hebrew seer who, looking on the generations of old, declared that those who sow upon the furrows of unrighteousness shall reap them sevenfold.

Address in Surgery

ON

ASCENDING CURRENTS IN MUCOUS CANALS AND GLAND DUCTS, AND THEIR INFLUENCE ON INFECTION: A STUDY IN SURGICAL PATHOLOGY.

Delivered at the Seventy-third Annual Meeting of the British Medical Association on July 27th 1905.

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MR. PRESIDENT, LADIES, AND GENTLEMEN,—When I look through the names of the distinguished surgeons who have delivered the Address in Surgery at the annual meetings of our Association during the last 50 years, I feel very strongly that my own thanks are especially due to the Council of the Association in thus honouring me by asking me to address you on the present occasion. Among those names to which I have referred one of the most distinguished is that of Professor Syme of Edinburgh who gave the Address in Surgery at the annual meeting at Leamington in 1865. Syme concluded his survey of the progress of surgery during the previous 40 years with these words:—

> In conclusion, Mr. President and Gentlemen, I beg to express my hope that from what has been said surgery will not appear to have stood still, or pursued a retrograde course during the last 40 years, but, on the contrary, to have been improved in many important points of practice and to hold out the prospect of further advance, so that when, forty years hence, some senior member of the Association shall take a similar retrospect, he will find no lack of materials for illustrating the march of progress.

Sir, it is 40 years this year since these words were spoken; what, then, shall we say to-day in fulfilment of Syme's prophecy? We may, I think, safely affirm that next to the enormous strides which the science of surgery has made in this period (a very large share in which triumph belongs, among other honoured names, to Syme's own son-in-law, Lord Lister), that next to this advance one of the most notable of the lesser changes has been the decentralisation which has sprung up in surgical practice. London, Edinburgh, and Dublin no longer act as exclusive centres, to which converge the surgical patients from the three divisions of the United Kingdom. Excellent surgical hospitals and homes, and competent and able surgeons, are found nowadays in all provincial towns of any size, while many of the real improvements and advances in surgical technique and surgical methods have had their birth in the country. In my judgment this great change has been wholly beneficial. It has, I believe, been of enormous benefit to surgery itself, and there is abundant evidence in every town to show that it has been the means of conferring untold blessings on the population of our country, both rich and poor.

I venture to think that it is partly to the recognition of this principle of decentralisation by the council of our progressive British Medical Association that I must attribute your kindness in asking me, a provincial surgeon, and not even a very senior member of the Association, to address you to-day. And hence I regard the honour conferred upon me not alone as personal, but as a compliment paid to my colleagues of the Midland branch and of the town of Leicester.

I propose, in using the opportunity now afforded me, to depart somewhat from usual custom and instead of attempting a retrospect of recent surgical triumphs and of advances in surgical technique I would rather try to throw the search-light of inquiry in the other direction and indicate some of the ways in which these very surgical triumphs may themselves throw light upon physiological and pathological problems and in this way enable surgery in some slight degree to repay something of the debt she owes to these two foundations of her existence. For when we come to consider the enormous number of what are really human physiological and pathological experiments which are performed daily for necessary and well-defined surgical objects and to save life; when we reflect on the great opportunities which the continuous observation of these operation cases affords of looking into the inner processes of bodily function, both healthy and diseased, we are bound to inquire whether we, as surgeons, have in this respect carefully observed all that we might have done and whether we have utilised to the utmost our many opportunities. Thus, to come closely to the matter of my remarks to-day:

THE LARGE INTESTINE.

Consider for a moment the very frequent—nay, the daily—establishment of fistulæ for surgical purposes. The operations of colotomy, cholecystotomy, nephrotomy, cystotomy, with the resulting fistulous openings into bowel, gall-bladder, kidney, and urinary bladder should enable us, if rightly studied, to observe something of what goes on in the hollow viscera, the biliary canals, and the urinary tract, when the fæcal stream or the biliary or urinary flow is wholly or partially diverted from its normal course. We will consider the fistulous opening in the bowel, established by the operation of colotomy, first. I have in several of these cases tried to ascertain what occurs in the bowel below the colotomy opening by means of the introduction of some insoluble, innocuous pigment, such as hollow suppositories containing a few grains of sterilised indigo or carmine, and will record the results in several cases.

CASE 1.—This was a case of cancer of the sigmoid colon with obstruction. About six inches of the bowel were removed with the growth and partial end-to-end anastomosis was performed, but owing to the patient's condition from obstruction a colotomy anus was also established. A week later, after recovery, a carmine suppository was introduced into the rectum. A white gauze plug inserted into the lower colotomy opening showed distinct carmine colouration within 24 hours and this colour continued to be noticeable for several days after the suppositories were discontinued.

CASE 2.—The second case was one of advanced cancer with almost complete obstruction high up in the rectum. Here again, after inguinal colotomy, an indigo suppository placed within the rectum was followed by the appearance of indigo at the colotomy lower opening within 24 hours. Here the indigo had passed through the malignant stricture.

CASE 3.—This case was one of inguinal colotomy for cancer of the rectum, with ulceration into the vagina. A suppository containing powdered sterilised litmus was introduced into the rectum on Nov. 28th at 8 P.M. The bowels were moved through the upper colotomy opening on Nov. 29th and 30th, and on the 30th the white gauze plug in the lower colotomy opening was stained blue; the blue colour turned red on the addition of acid, thus showing not only that the litmus had traversed the sigmoid flexure, through the stricture, from the rectum, but also demonstrating that the intestinal mucus, and the secretion of the large intestine, is alkaline in the absence of fæcal matter.

CASE 4.—This case is of peculiar interest. An operation for acute appendicitis with abscess, six months previously, had resulted in a fistulous opening into the cæcum, which discharged a very little fæces in the right iliac region when the patient assumed the upright position. While recumbent practically the whole of the fæces was passed per anum. Before closing the fistula indigo suppositories were administered twice daily on Dec. 12th, 13th, and 14th. Distinct evidence of indigo from the cæcal fistula appeared on the 15th, the bowels having been moved freely on the 13th, 14th, and 15th, and an aperient taken by the mouth on the 12th and 14th. In this case the particles of indigo traversed the whole length of the large intestine within at most three days and during the time that the natural downward passage of fæcal matter was going on and in spite of the active clearing of the bowel on two occasions by aperients.

From these cases we learn: first, that in the large intestine in cases in which the fæcal stream has been diverted by a previous colotomy there is an upward current capable of carrying foreign particles, such as powdered indigo, along the bowel and taking about 24 hours to pass from the anus through the sigmoid flexure to the colotomy opening. The shortest time recorded has been 12 hours. Secondly, that this current is not arrested by the presence of a stricture in the rectum, provided that there is, of course, some patency of channel left. Thirdly, from the case of the girl with the cæcal fistula we learn that it is not essential for this upward current that the fæcal current should be wholly diverted or absent, or that the bowel should be prevented from undergoing brisk downward peristalsis, the effect of an aperient. Fourthly, from the same case we learn that this ascending current takes about three days to pass from the anus along the whole length of the large intestine to the cæcum.

In offering any explanation as to the means by which this upward carriage of pigment particles is brought about we must remember:—1. That in the case of the indigo, at any rate, the particles are insoluble in the intestinal juices. Indigo administered by the mouth is recovered unchanged, as far as microscopic appearance goes, from the fæces, so that the material is conveyed in particulate masses, probably by a mucous steam, and not by the agency of phagocytes or wandering cells. 2. Also the current is absent in the dead bowel and is not due to capillary flow in a closed tube. If, for instance, indigo is inserted into the lower end of a sheep's colon removed after death no ascent of the powder occurs in the tube. 3. Further, even in healthy animals in the absence of any fistulous opening there is some upward flow, though slight, along the bowel. Indigo inserted into the rectum of a guinea-pig may be found when the animal is killed 48 hours later in the fæces higher up the colon. 4. Also, the current is quickened by any influence, such as the administration of an aperient, which acts by increasing peristalsis, or very possibly by increasing the secretion of mucus. This was shown in the last case.

In fact, a consideration of the facts strongly suggests the explanation that the particles of indigo, &c., are carried up the bowel by a mucous current and that while there is a central downward current of solid or semi-solid fæces, caused by peristaltic contraction, there is going on at the same time intermittently, or possibly alternating with the downward peristalsis, an upward peripheral mucous stream, covering and hugging the intestinal mucous membrane and capable of conveying minute particles only along with it. Some sort of upward intestinal current has been suspected in the large bowel and hypothetically spoken of as due to reversal of the peristaltic wave. This is an unlikely explanation from the facts mentioned above—that it is present while the downward peristalsis is going on at its normal rate, and also when the bowel is quite empty of any fæces at all. I venture to think that these facts have a not unimportant bearing on the physiology of the large intestine. By means of such an upward stream the nutritious fluids and particles which are being absorbed out of, or squeezed out of, the gradually solidifying and hardening fæces as they traverse the colon are carried gently upwards into the emptying upper reaches of the bowel and are presented to the free mucous membrane for readier absorption. They, too, have a direct bearing on therapeutics and on the administration of enemata, both nutritive and purgative.

THE FEMALE GENERATIVE TRACT.

We now pass to the consideration of the female generative canal. Here surgical operations on the Fallopian tubes have afforded opportunities for careful observation. In a considerable number of cases during the last two years in which it appeared likely that operation would become necessary on the appendages, after the preliminary douche a little coloured pigment—in most cases purified and sterilised indigo, in a few carmine—has been either placed upon, or inserted just within, the os uteri at varying periods up to 20 hours before operation. Careful microscopical examination of the contents of the Fallopian tubes in these cases has nearly always shown the presence of indigo or carmine particles, while in several cases the pigment has been found on the peritoneal surfaces of the broad ligament, meso-salpinx, and the fimbriæ of the Fallopian tubes. This shows that the particles are carried from the os uteri below, right through the uterus and the Fallopian tubes, to the peritoneal sac around the ovary above. In the case of these pigment particles automobility (such as the spermatozoa possess) is of course out of the question and we must fall back on ciliary action or an ascending mucous stream along the contiguous walls of the mucous canal.

In 22 cases in which careful examination was made of the contents of the Fallopian tubes and peritoneum for the presence of indigo introduced into the os uteri at periods up to within 20 hours before operation there were only four in which no pigment was found. Of these four cases one was a case of double hydrosalpinx, in which any connexion with the uterine cavity was difficult or obliterated. In one the indigo had been inserted only 16 hours before operation. In two cases the indigo was inserted on the first day of the establishment of the menstrual flow and probably failed to enter the uterus. On the other hand, positive results were obtained in three cases of double pyosalpinx, in one case of uterine fibroid, and in two cases of tubal pregnancy in which rupture or tubal abortion had occurred. One of these is interesting from the fact that the remaining left ovary and tube had been removed two years previously. The indigo was found in the bloody mucous contents of the tube on the uterine side of the rupture and in the blood filling the conception cavity. Indigo was also found in two cases of chronic appendage disease in which the indigo was inserted on the last day of the menstrual period and in two cases of hysterectomy which are of special interest. In one the patient was 70 years old and therefore the uterus was senile. In the other the uterus was removed some months after the artificial menopause produced by oöphorectomy 12 months before. These two cases clearly show that this upward mucous stream is not dependent on the functional activity of the uterus, since it occurs in the senile and post-climacteric organ as well as in the actively functional state. In two cases of large ovarian cysts pigment granules were found on the peritoneum and in the contents of the tube dilated and stretched over the cyst wall. In the case of suppurating ovarian cyst with pyosalpinx indigo was found in the pus in the tube. It was also found in three cases of chronic inflammatory disease of the appendages, probably gonorrhœal in origin. In one case of large pyosalpinx and ovarian abscess on one side and hæmosalpinx on the other operation became necessary while the temperature was 104° and 28 hours before operation pus began to escape from the uterus. Indigo was found in the bloody contents of the left tube but not in the pus in the right tube or in that of the ovarian abscess. No doubt the particles were washed away from the uterine opening of the right tube by the flow of matter from the opening.

I desire also to draw attention to the presence of the indigo within the pus cells in one of the two cases of pyosalpinx. The granules were actually ingested by the cells and lay scattered as blue pigment grains in their interior. In fact, we had succeeded in feeding the pus cells with indigo and had produced an *intra vitam* staining. Two explanations are possible. Either the material had entered the blood or lymph stream and had been ingested by leucocytes or phagocytes which had then migrated into the abscess, or the pus cells had ingested the granules *in situ* in the abscess, after the pigment had been carried thither up the Fallopian tube. This will, I believe, prove to be the true explanation and also carries with it the interesting fact that pus cells, as such, after their entry into an abscess are capable of ingesting foreign particles into their interior. In the other three cases of double pyosalpinx examined indigo was found in the pus in the tubes but not in the cells. Now in these cases there was no manifest discharge of matter from the uterus, though the presence of the indigo in the tubes proves that the communication between the tubes and

the uterus was still patent. In fact, I believe that this is the case in most, if not all, cases of pyosalpinx. Blocking, temporary and intermittent, no doubt occurs of the lumen of the tube on the uterine side, but bearing in mind how difficult it is, even by operation, to obliterate the channel by any means short of excision I think it very probable that some communication exists in most of these cases of secondary infection of tubes with purulent contents and that an occasional slight escape of pus occurs, with corresponding relief of intra-tubal tension. In fact, the whole subject of tubal regurgitation of uterine contents is very interesting. We know from the artificial production of hydrometra and hydrosalpinx in animals, under aseptic conditions, that regurgitation of the hydrometric fluid from the distended uterus is much prevented by the sudden deviation of direction which the tube takes in passing through the uterine muscular wall. At the same time, no opposition is encountered by the mobile spermatozoa in their upward passage. And we also now know, from the observations I have just described, that foreign particles of a suitable size if introduced into the vagina are habitually carried up the whole length of the genital canal in women. It is not absolutely necessary that the indigo should be inserted into the cervix, for if deposited in the upper vaginal vault it is still found occasionally in the tubes at the operation.

The question of the size of the particles is an important one. Particles up to the size of lycopodium grains are carried up but this seems to be about the limit, as I have found lycopodium (a very few grains) in one case only. This same upward current exists also in animals, for I have repeatedly found indigo particles in the Fallopian tubes of rabbits after insertion of the powder in the vagina. I wish also to record an observation at this point on the question of mucous currents in the oviduct of birds. After dusting indigo on the cloacal opening, or after insertion of the powder within the cloaca in fowls, the pigment was found, not only upon, but also sparingly incorporated in, the egg-shell and I have seen it in the Vitelline membrane, thus showing that it had passed up the oviduct. Further observations are necessary to ascertain whether this occurs only at certain periods or throughout the egg-laying period. I feel sure, however, from repeated observations during intra-abdominal inspection of the fimbriated ends of the Fallopian tubes during the menstrual period that regurgitation of menstrual blood and mucus occasionally occurs from the abdominal ostium of the tubes; moreover, blood is sometimes found free in the pelvic cavity without symptoms and apart from any question of tubal pregnancy. In fact, I have no doubt that in many cases of dysmenorrhœa in young women the pain is really tubal in origin and is due to peristalsis of the tube in its effort to overcome this regurgitant wave. The pain, in fact, is due to tubal, not uterine colic.

Let us for a moment consider one other important fact, depending on the establishment of the presence of this upward, utero-tubal, mucous current. Those who are brought in contact with uterine cases know that gonorrhœal and puerperal poisons, although the most important, do not exhaust all the sources of tubal and peritoneal infection. The mere exposure of the upper vaginal tract to dirt, to lotions and ointments, to any substance surgically unclean, by whatever means introduced, has in many cases originated salpingitis and chronic endometritis, and I am not without hope that this picture of the constant upward mucous current which I have described may produce a greater sense of responsibility in surgeons and tend, perhaps, to check some of the indiscriminate curetting operations which are so fashionable and which (while the only treatment in some cases) in others only aggravate the troubles they are supposed to cure. Fortunately, the door, though open, is guarded by the watchful peritoneum. Foreign particles and fluids introduced, as it were, guttatim, by the tiny canal of the tube, if not too virulent, are at once incarcerated and rendered innocuous. But it should surely make us all most careful to know that any powdered substance we introduce into the os uteri will probably be found within 20 hours inside the peritoneal cavity.

[Mr. Bond described his observations on the presence of indigo in biliary fistulæ after it had been given by the mouth.]

THE URINARY TRACT.

We now pass to the consideration of the urinary tract, from the kidney to the bladder, and from the bladder to the surface, by way of the male and female urethra. We will consider the ureters first. Reverse infection of the pelvis of the kidney so frequently occurs from interference with bladder function by septic instrumentation that the ureter is universally regarded as the usual channel of infection and not the blood stream. When we come, however, to consider the manner of this ureteral infection the successive steps are not so clearly known. In extreme cases of marked obstruction to the outflow of urine from the bladder in which backward pressure of urine leads to dilatation of the ureters and in which the interior of the bladder has become infected, by instrumentation or otherwise, it is, of course, quite possible that the open water-way, by arrest or reversal of current, may explain the upward carriage of infective organisms. At present I have not had an opportunity of testing the transference of indigo to the pelvis of the kidney in these cases. The more important point, however, was, if possible, to determine whether, supposing that from any cause (such as the establishment of a renal fistula) the normal downward current of secretion from the kidney to have been arrested, whether in these circumstances any regurgitation of mucous stream occurs in the normal, or at all events, undilated and competent, ureter.

The following case has an important bearing on this point:—

Lumbar nephrectomy for cystic destruction of the kidney by calculus impacted in the lower end of the ureter.—The calculus was detected by a probe in the ureter at the time of the nephrectomy, but the condition of the patient was such that it was thought wiser to bring the open end of the ureter to the skin surface in the loin and remove the calculus at a later date through a vaginal incision. This was done one week later and a good recovery ensued. After the operation of nephrectomy the bladder was irrigated daily and two drachms of an iodoform emulsion containing sterilised indigo allowed to remain in the bladder. The fistulous opening of the ureter on the loin was lightly plugged with a little white sterile gauze. This and the muco-pus from the ureter were examined daily and on three occasions numerous indigo particles were found showing that here, at all events, a reverse mucous current had passed up the ureter in the absence of any urine.

The position, then, at present is probably this: Given an arrest from any cause of the normal downward current of urine along the ureter it is possible that a backward mucous current may occur, carrying with it any infective organisms or foreign particles, such as pus, or blood cells, or débris, which may be present in the bladder. What we do not at present know is whether this regurgitation occurs in those cases of kidney infection in which there is no direct evidence of arrested secretion. We are not at liberty to assume, however, that even in such cases temporary arrest does not occur. It is, indeed, known that the flow of urine from the ureteral orifices is intermittent in normal circumstances; it is possible that this intermittency may be increased to the point of temporary arrest under pathological conditions. We still have to consider the question of the entrance of infection into the bladder from outside; the conditions, in fact, of the mucous currents in the urethra.

I will first consider the male urethra. The conveyance of infection from the exterior, in the absence of any outside interference, with a normal flow of urine along a healthy urethra is, of course, practically unknown. But, as in the case of the gall-bladder, the frequent performance of suprapubic cystotomy for surgical purposes in the urinary bladder affords opportunities of investigating what goes on in the urethral mucous canal. I have investigated two cases of suprapubic cystotomy in which the bladder was drained by Sprengel's pump after prostatectomy.

Complete prostatectomy.—Oct. 20th, 1904. Bladder drained suprapubically by Sprengel's pump; blood was present in urine for ten days, then clear. On Oct. 31st, ten days after operation, indigo was inserted within the urethra a quarter of an inch from the meatus in the eye of a Jacques's catheter, and again two days later. The urine drained suprapubically was collected daily and the sediment examined. Indigo grains were found sparingly in the deposit.

Noticing the difficulty in finding such a minute quantity of indigo in such a large quantity of fluid and the labour involved in searching for it, in the next case I adopted a somewhat different technique.

Prostatectomy for adenomatous prostate and suprapubic drainage of the bladder by Sprengel's pump.—March 25th, 1905. The urine remained blood-stained for one week after operation but when clear, eight days later, a little sterilised indigo was inserted into the penile urethra just within the meatus on one occasion only, no urine having been passed per urethram. A small piece of white sterile gauze was placed at the bottom of the suprapubic tube or silver cannula and this served as a filter through which the urine and vesical mucus passed before being drawn out by the aspiration of the small inner glass tube through the suprapubic opening. The gauze was removed 24 hours later, and a cover-glass preparation taken of the mucus and urine which it contained. Bright blue indigo granules were freely found in varying sized particles.

Now, since all source of accidental contamination from outside was avoided by a dressing over the suprapubic opening, the indigo can only have gained access to the interior of the bladder by traversing the urethral canal. Further, we must remember that in both these cases no instruments had been passed and that the urethra was uninjured, at any rate up to the triangular ligament and prostatic portion. The main point, of course, being that all passage of urine had been arrested for some days along the mucous canal. I have also tried inserting indigo within the urethra alongside of a catheter retained in the urethra and bladder, in cases where it has been necessary for surgical reasons for some days to drain the bladder through a tied-in catheter. In several of these cases I have recovered the indigo from the urine flowing from the catheter, showing that the material has passed centripetally along the urethra to the bladder. I do not feel, however, that much stress can be laid on this, as there is always more or less to and fro, or inward or outward, movement of any instrument tied in the bladder, it tends to be expelled and is passed back again and re-secured, as the movements of the patient alter its position and it is thus quite possible that, by friction of the instrument against the wall of the urethra, any material might be mechanically conveyed, in successive waves, along the urethra to the bladder.

This objection does not, of course, apply to the previous cases in which no instrument was used; but, at any rate, the experience of the latter case shows how easy it is for infection to be conveyed from a dirty meatus alongside a retained instrument into the bladder; for if inorganic particles can float, as it were, in the mucous stream which is set up between the instrument and the urethral wall and are carried thus backwards into the bladder infective organisms can do the same. It is not necessary to assume that they must be conveyed on the point of, or by, a dirty instrument; they may reach the bladder by way of the urethra from the surface at the meatus after the introduction of the instrument. In fact, surgeons know well that even though the urine be received by a tube direct from the catheter into some antiseptic fluid without contact with the air, yet it is practically impossible to keep the bladder aseptic for any length of time in cases in which an instrument traversing the urethra is tied in the bladder, and I think the above observations throw some light on the manner in which, and the route by which, this infection is brought about. At any rate, they point to the extreme importance of guarding the external orifices and probably careful disinfection of the external meatus and the application of efficient antiseptic filtering dressings at this spot would have a good influence in preventing bladder infection in the manner above described, especially in those cases (and they should be very few) in which it is necessary to tie an instrument in the bladder.

One word as regards the short female urethra. In one case of vesico-vaginal fistula with a very considerable opening, in which it was necessary to perform suprapubic cystotomy and operate from within the bladder, the opportunity afforded by subsequent suprapubic drainage was utilised to trace the urethral mucous stream in the female urethra. A little indigo was inserted just within the meatus and a small filtering plug of sterile gauze inserted in the suprapubic tube through which the urine was draining. Indigo granules were found in the mucus coating this plug when removed six hours later. We have thus traced the reflux passage of inorganic particles of a recognisable substance like indigo from the surface along the urethra to the bladder and from the bladder to the upper end of the ureter. In all cases the important associated condition has been that the normal flow of urine has been diverted. We still require observations on cases of pyelitis made at the time of operation, when the pelvis of the kidney is first explored and in which indigo had previously been inserted into the bladder. Observations on animals will probably be necessary to investigate this point under conditions in which no previous diversion of the urinary flow has been brought about by surgical operation or disease. The mode of infection of the epididymis by the tubercle bacillus or by the gonococcus or pyogenic organisms requires further examination. I have not yet been able to test the mucous current in the vas deferens, but I think it likely that sterilised indigo inserted into the prostatic urethra in suitable cases will be recovered from tuberculous and other abscesses in the epididymis or the vesiculæ seminales. If this should occur then the mucous canal of the vas deferens and not the blood stream will probably be the route taken.

RESPIRATORY TRACT.

With regard to the respiratory tract and the mucous canals in connexion with it, the accessory nasal cavities, the Eustachian tubes, and the bronchi, any observations on this part of the body are all, of course, open to the obvious objection that foreign particles may be, and no doubt are, carried by the air currents and distributed over the mucous surface. I should, however, like to mention one case of chronic otitis media with tympanic perforation in which sterilised indigo was insufflated for four days into the retro-pharyngeal cavity. The muco-pus flowing from the external meatus was collected on both sides and on the fourth day showed abundant indigo granules. Of course, it will be objected that owing to some effort of sneezing or blowing of the nose the material was transported up the canals by a blast of air. The patient was instructed to avoid all such sudden expiratory efforts and I am inclined to think that the presence of the indigo in the internal ear is not due to this cause. Supposing, however, that such is the case, it is surely a matter of considerable importance that in, at any rate, cases of perforated drums not only air currents should pass habitually from pharynx to middle-ear but that foreign particles should also find their way up to the Eustachian tubes in the absence, of course, of all instrumentation. The bearing of this on the question of conveyance of infection from pharynx to middle-ear is obvious, though, in the case of tympanic perforation, the important condition of diverted flow is present.

GLANDS.

We now pass to the consideration of the glands with ducts opening on to the surface of the body and the possible conveyance of pigment particles along the ducts, from the skin to the alveoli of the glands. The mammary gland, with its numerous ducts opening on the nipple, is the largest and most important of these glands. In a case of duct cancer of the breast for six days before removal of the breast sterilised indigo was rubbed on the nipple twice daily and a simple dressing of wool was worn. Great care must, of course, be taken to avoid contamination of the exposed breast tissues at the time of the operation, but this, after all, is an object lesson in surgical technique and the same precautions in the way of repeated washing and sterilisation of the skin which are taken to prevent contamination by skin organisms will apply to the indigo also. In order to insure absence of contamination I have either coated the nipple and surrounding skin to be excised with a layer of gauze and collodion or, having turned up the flap of skin to be excised, inwards all round the nipple, I have tied this by a purse-string suture, thus leaving only the raw surfaces exposed. The whole breast after removal is laid on a slab with the deep surface uppermost and incisions are made into the breast tissue in the neighbourhood of the ducts and into the portion affected by the cancer. Scrapings were taken from these incisions and indigo granules were found sparingly but from several parts of the breast. Other cases of mammary cancer have yielded the same result. I have also examined unstained sections of breast tissues obtained in the same way in two cases of cystic disease associated with chronic mastitis in which indigo had previously been applied to the nipple and detected it in the breast. In a case of chronic mastitis with a scirrhous nodule in one part of the breast, in which indigo was applied for four days before operation, the pigment was found in the portion of mammary tissue containing the ducts just beneath the nipple, but not in the solid portion invaded by growth.

Now, the importance of this fact, of the conveyance of pigment particles from the skin to the deeper parts of the mammary gland, along the lacteal ducts, lies in its application to the question of the transference of infective organisms by the same route. Here, again, it is a question of conveyance by blood or lymph stream as against transference by mucous currents along the ducts, and it seems to me that the demonstration of the passage of inorganic pigment particles by this latter route strongly confirms the suspicion that it is by these duct channels that pyogenic and probably tuberculous organisms gain access to the mammary gland. I feel some hesitation in the present unsettled state of the cancer problem in mentioning cancer in this connexion. All I will permit myself to say is this: that if, in the course of future research the exciting cause of cancer shall be proved to be parasitic, the above observations may stimulate inquiry into the nipple route as a possible channel of infection in cancer of the breast.

CONCLUSIONS.

We have now passed in review the conditions present in the more important mucous canals and gland ducts opening in the interior of the body and in one case in the ducts of a gland opening on the skin surface, and a few general observations bearing on the facts so observed may not be out of place. I think from the observations I have described we may consider it proved that by some means or other, and under certain conditions, particles of an insoluble substance, such as indigo, inserted into the orifices of a mucous canal or duct are conveyed along the mucous channel in a reverse direction to that taken by the contents of the tube, or by the secretion or excretion of the glands along such ducts. The conditions which seem to favour this passage are: some interference with the normal flow of the contents of the mucous tube or duct; some arrest or diversion of secretion, such as is produced by a fistulous opening, though it is by no means necessary that this should be complete. By what agency is this transference of foreign particles brought about?

Ciliary action.—Though present in the upper generative tract, cilia are absent in the lower genital tract, in the intestinal canal, in the biliary ducts, in the urinary tract, and in the ducts or glands opening on the skin.

Muscular contraction.—No doubt irregular or reversed peristaltic contractions in the bowel, if present, would bring about the result. It is, however, suggestive that the ascent of the indigo up the colon is not prevented but rather accelerated by the increased downward peristalsis produced by purgatives. Reverse muscular contractions are as yet, moreover, unknown, or rather undemonstrated in the bile ducts, urethra, and urinary tubes, Fallopian tubes, or in the ducts of glands.

The phenomenon is not due to physical agency alone, such as capillary action. It is absent in the non-living tube. The transference of particles in empty tubes and ducts is one, and there are other reasons before explained, for regarding the mucus which coats the walls of the tube or duct as the vehicle in which the particles are carried. Further observations are necessary to ascertain whether a reverse current—a sort of mucous backwater—is present in all mucous channels or whether it only exists where the normal outgoing current of secretion or excretion is interfered with. Such a back current is probably present to a certain extent normally though much increased by any agency, such as a fistula, which starts a flow of mucus from the other end of the canal. The essential conditions, then, seem to be a living tube the walls of which are partially, if not wholly, in apposition and lined by a mucous secretion, while the reversal of this mucous current is favoured by any condition (such as a fistula) which leads to arrest or diversion of the ordinary secretion of the viscus or gland.

The bearing of these remarks on the larger question of infection will be at once apparent. I am inclined to think that in some cases more attention should be paid to mucous channels as routes of invasion rather than to the lymph or blood stream. Thus I have spoken of the large share which such a mucous, as opposed to a blood, infection plays in the diseases of the female generative tract. The rapid ascent of the urethra by the non-motile gonococcus and the colonisation of deeper portions of the tube, apart from direct extension of growth and in the absence of instrumentation or injection, are thus explained. The ascending infections of the kidney by way of the ureter can also be investigated from this point of view. Our knowledge of the causes which produce biliary and urinary calculi is still very incomplete. The facts which point to the importance of diseased conditions of the mucous linings of the excretory tubes in favouring the deposition of concretions are of especial importance from this point of view. And bearing in mind the proved transference of particles, under certain conditions, from duodenum to gall-bladder and from urethra to ureter, I hope that further light may thus be thrown on these calculous diseases. In fact, the burden of my remarks points to the necessity for the active recognition of the importance of all communications between the efferent canals of the body and the external world and thus accentuates the value of personal hygiene and true cleanliness.

Gentlemen, I hope I have not wearied you with these remarks on what may be called surgical physiology and pathology. As I said at first, instead of pointing to new operations or improvements in surgical technique, instead of giving statistical tables indicating case-mortality after operations, I have tried to turn your attention the other way and to glean a few facts from the many opportunities which modern surgery affords, for the observation of fundamental processes of organic life. And yet, without the surgical revolution which we owe to a few great men and which has been one of the glories of our century, these life-giving operations would have been unperformed and the light which they have shed in many a dark corner of the human body would never have shone. Though the public (the mass of our fellow creatures) are only beginning to grasp, as yet very imperfectly, the all-pervading influence which medical and surgical science, and indeed all the sciences which deal with physical and mental efficiency, will assuredly soon exert in the life of the individual, the City, the Nation, and the State; yet it is surely fitting that we medical men, who know these things, should ever recall the services rendered to humanity by the Pasteurs, the Listers, the Kochs, and all those who have done so much to raise our calling to its present proud position—all those who have made these things possible. And how better can we show our gratitude to them than by strenuous individual effort, each of us, in spite of much distraction and scanty opportunity, to add one small fact to the store of garnered knowledge, to bring even one stone to the building of that glorious Temple of Health, the topmost pinnacle of which will only be finished when disease and suffering have been finally vanquished.

TEMPORARY FIXATION OF TESTIS TO THIGH.

A SERIES OF 25 CASES OPERATED ON FOR UNDESCENDED TESTIS.

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THE plan of keeping down the testis after operation in this class of cases by fixing it to the thigh was first demonstrated by me in cases shown at the Medical Society of London[1] on April 16th, 1894. It has been practised and recommended lately by several distinguished surgeons, especially by Professor Rushton Parker[2] and Professor T. Annandale.[3] The latter fastens the testicle by a ligature to the skin of the opposite thigh, probably with a view to pull in the line of the inguinal canal. But the pull is quite direct enough from the thigh of the same side and in the latter case the patient himself can easily relax the tension by flexing the hip. Katzenstein of Berlin in the *Deutsche Medicinische Wochenschrift*, 1902, vol. xxviii., p. 937, described a case in which he fastened the testis to a pedicled flap of skin of the thigh instead of to the fascia lata. I think this is no improvement on my plan. I am indebted for the reference to a very excellent paper on undescended testis by Odiorne and Simmons in the Annals of Surgery for 1904, vol. xl., p. 962. But they have overlooked my cases published eight years before Katzenstein's. I do not believe that any surgeon practically acquainted with my plan would ever afterwards resort to any other. The first step is to free the cord and testis. In many cases this requires the incision of the external oblique used in Bassini's operation for the radical cure of inguinal hernia. There frequently is a congenital inguinal hernia to deal with in these cases and when there is not, incision of the external oblique is sometimes necessary to bring the testicle out of the abdominal cavity and to free it and the cord from deep attachments. It was from Lucas-Championnière's book on hernia published 20 years ago that I learnt the importance of dividing these adhesions and also the comparative ease with which the cord can be separated from the tunica vaginalis high up the inguinal canal.

The main incision I make is over the inguinal canal and the external ring. Two other skin incisions are made in the great majority of cases, one about one and a quarter inches long at the bottom of the scrotum and the other of the same size in the upper and inner part of the thigh adjacent

[1] Transactions of the Medical Society, vol. xvii., p. 349; and THE LANCET, April 21st, 1894, p. 1008.
[2] Brit. Med. Jour., 1902, vol. ii., p. 1316.
[3] Ibid., p. 1962.

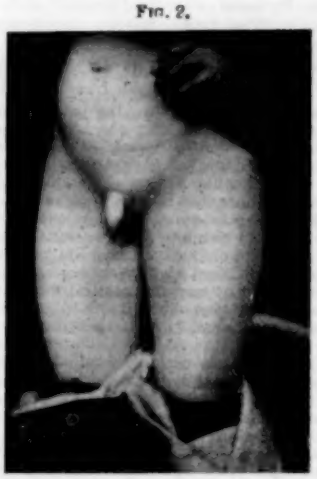
to the scrotal incision. Before cutting the scrotal incision a bed should be made with the finger in the scrotum to receive the testis and the scrotal incision should divide all the structures down to this bed. Something, either a blunt instrument or a piece of gauze, should be passed through this scrotal aperture immediately, or its different layers will cease to be opposite one another. The thigh incision should expose the fascia lata.

FIG 1

From a young man who had been operated on two years before for undescended testis and right inguinal congenital hernia. Being perfectly comfortable he did not wish the testis to be separated from the thigh.

The testicle and the cord having been thoroughly freed from everything but the musculo-fibrous bands forming the gubernaculum, which are generally attached to the pillars of the external ring, especially the internal pillar, the gubernaculum is divided as far away as possible from the testicle. A pair of forceps is then passed from below upwards through the hole in the scrotum and the gubernaculum is seized by it and pulled right through the scrotum till it can be seen through the hole in the skin of the scrotum. At the

FIG. 2.



Testis attached to thigh; photographed just before separation.

same time the tunica vaginalis testis should also be pulled down into the scrotum, though it is not absolutely necessary to keep the testis in its serous bag; indeed, I have often omitted to attend to this point. The posterior borders of the apertures in the skin of the scrotum and thigh are next united by a continuous silkworm-gut suture left long at both ends. Now the gubernaculum testis is sutured with strong catgut to the fascia lata of the thigh; and, lastly, the original silkworm-gut suture is used to complete the union of the skin apertures in the scrotum and thigh to one another. The hernia which is generally present is operated on for radical cure in the way the surgeon thinks best for the individual case. I nearly always do a Bassini's operation, but in very young children have been content with simpler procedures such as that of Kocher.

Even when the testicle has been wholly intra-abdominal I have always succeeded, not only in bringing it into view chiefly by means of the gubernaculum but also in getting it, by persuasion, to come down to the fascia lata without uncomfortable or painful tension. The thigh can always, if necessary, be brought up to the testis by flexing the hip. The patient is sent to bed with his hip flexed but soon straightens it out himself, thus gradually lengthening a short cord, and I repeat that the process is painless. None of my cases have suffered from any complication except an occasional stitch abscess, due either to delayed dressing or omission to remove the silkworm-gut suture from the skin. For dressings is used iodoform gauze wrung out in 1 in 2000 perchloride solution, the gauze being passed behind the scrotum as well as in front, and over the gauze salicylic wool. If the urine wets this dressing no harm is done if it be changed within 24 hours. In older and clean patients it does not generally need to be changed at all until it is time to remove the skin sutures.

I like to leave the testis attached to the thigh for five months. It is rare to find a patient who feels any discomfort from this. One of the above illustrations (Fig. 1) is taken from a patient who had been operated on two years before and who, being perfectly comfortable, saw no reason for having the scrotum freed from the thigh. I have had several such cases. In some of the patients both testes were operated on, sometimes separately, sometimes together.

Occasionally I have attached the fibrous coat of the testis directly to the fascia lata and several times the fibrous fold between the lower end of the epididymis and the body of the testicle. But the gubernaculum is the best. Sometimes I have passed the gubernaculum beneath a bridge of fascia lata and then brought its end up again and sewn it to its base. There is an objection to fastening the testis too close to the fascia lata, as then the parts have afterwards to be dissected asunder. In the operation, as I generally do it, they can be separated with a scalpel or sharp pair of scissors, cutting close to the thigh, especially as the testis has a greater tendency to pull the fascia lata up than to be pulled down by the fascia lata. Two or three stitches serve to close the wounds made by the separation, which is effected under local anæsthesia. When I have found no tension at all on the cord and testis I have simply carried the suture fixing the gubernaculum through the bottom of the scrotum with a needle and with the same needle sutured it to the skin of the thigh only, dividing it when removing the skin sutures. But I have only once found the tension so non-existent as to justify this.

The testis generally remains permanently in the scrotum but near its root. The fears about a testis just outside the inguinal canal and on the front of the os pubis being dangerously exposed to injury are according to my observation, and I have inquired carefully into this point, imaginary. For example, one of my patients has had his testis in that position for ten years, playing cricket and other games without the slightest inconvenience.

Do these testes grow when brought down in the scrotum? Undoubtedly some of them do, but not to the size of normal testes. Reproductions of photographs are given of two cases (Figs. 1 and 2). The scrotum and testicles represented in Fig. 1 had been attached to the thigh two years and the patient was perfectly comfortable, wishing it to be left alone.

Should the undescended testis be brought down by operation? Ordinarily, if an important organ were out of place and could safely be put into correct position, the indication for operating would be regarded as sufficient. Moreover, that indication would be strengthened if there were reason to believe that not only appearance but function would possibly be improved. Now this is true of the testicle. But there is still another reason for bringing down an undescended testis by operation—namely, that in such a case all the most serious and expensive features of the operation may be required to treat the frequently coexisting hernia.

There are some who advise that when an undescended and small testis occurs in connexion with a hernia, then the testis should be removed. They say it is worthless. The burthen of proof of this view lies with them. I think they have

quite failed to sustain it. Even if it be granted that microscopic examination proves such testicles to be incapable of producing normal spermatozoa—and I doubt if it does, even then, however, the microscopic examination of a testicle just removed from the inguinal canal or from the abdominal cavity does not afford any final proof of what that testis might have developed into had it been brought down into the scrotum and kept there for several years. Moreover, there has been known to us now for several years still another strong reason for conservatism in dealing with undescended testes—viz., the fact that other glands, such as the thyroid, the suprarenal, and the thymus, exercise a serious influence on the general state of the body in some more or less uncertain way, generally regarded as by producing an internal secretion.

This last argument has of late been unwittingly misrepresented and weakened. It has been put as if it depended on the truth of a quite unproved hypothesis—viz., that which assigns the duty of influencing the general state of the body to certain cells in the testicle of which the function is as yet unknown. This is an interesting surmise, but the argument in favour of preserving as much testicular substance as possible is quite independent of it and must not be regarded as standing or falling with any such speculation. It is quite conceivable that the internal testicular secretion, if there is one, may be a mere by-product of the manufacture of semen.

Lastly, it should always be remembered that each individual has only two testes. And further, sometimes both are undescended. Such cryptorchids are said to have begotten children, though I am not aware whether the evidence in favour of the statement was very severely tested. There are obvious possibilities of error. So far as I know, only one of my patients has married and become a father. But nearly all my patients are still more or less young. Reflecting on the reasons which have brought most of my patients with this affection to consult me, I think they have been one or more of the following: (1) liability to attacks of pain, sometimes very severe, in the inguinal region; (2) the mother's concern at discovering the absence of the missing testis; (3) the coexisting rupture; and (4) acute strangulation of a congenital hernia which perhaps had given no sign or warning until the day of strangulation. With regard to No. 1, it may not be possible to tell whether the pain is due to a hernia or to the nipping of the testis as it slips in and out of the canal.

In some of my earlier cases in which I have found no hernia I think I may have overlooked a potential one through not slitting up the inguinal canal. With care an unobliterated process of the tunica vaginalis should usually be found in the inguinal canal. Two, at least, of the cases reported in this paper came under my care while acutely strangulated. One, a young man, was quite unaware that he had a hernia, the other, an old man, had his gubernaculum directed outwards after emerging from the external ring and attached to the front of Poupart's ligament, not far from the anterior superior iliac spine. The 25 cases on which this paper is based were tabulated for me by Dr. W. Trethowan, now of Perth, Western Australia, and by Dr. E. Bell Tawse. They stop short four years ago, since which I have operated on a number of other similar cases. However, as all have followed practically a similar course ending in a good recovery, it is not necessary to complete and to publish the tables. Analysed they show—

Right side affected in	12
Left " "	2
Both sides	5 (1 ?)
Not stated	6
Total	25

The presence of hernia was noted in ten; but a potential hernia—i.e., an unobliterated tunica vaginalis in the inguinal canal—existed in nearly all the rest. In two cases the hernia was strangulated. One hernia (in a man aged 61 years) had a part of the bladder in the inner wall of the sac. In this case already mentioned the testicle had emerged from the inguinal canal and then passed upwards and outwards to be fixed near the anterior superior iliac spine, where there was also a hydrocele. It occurred 17 years ago and I removed the testis. On the earlier cases Macewen's operation for hernia was performed, on most of the later, Bassini's. As regards temperature, in only three is it noted to have risen above 100° F. after operation, in only one above 101°, and in not a single case did it rise to 102°. In the great majority the highest point was 99° to 99·6°. In seven cases the charts are missing.[4]

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ON THE TREATMENT OF ACUTE SUMMER DIARRHŒA IN INFANTS.

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THE theme of acute infantile summer diarrhœa is a somewhat dispiriting one, nor is the depression so commonly associated with recollections of it at all relieved by a sense of any conspicuous success in its treatment. It is, nevertheless, an important complaint both from its extreme prevalence and for the large share attributable to it in our excessive infantile mortality.

Any form of diarrhœa my occur in infants during summer weather but the particular one I am dealing with is only too readily recognisable without any further specifying or description. Occurring in widespread epidemics when the weather is unduly warm it floods the out-patient department and the wards of every children's hospital and its treatment exacts the major part of the time and attention of both the resident and the visiting staffs. The complaint is known under various names, the two commonest, perhaps, being cholera infantum and acute gastro-enteritis. To both such names, however, there are objections, in that the one implies a connexion with another totally different and distinct disease and the other assumes a pathological condition of the stomach and intestines which is seldom, if ever, verified on post-mortem examination. The symptoms are apt to prove monotonous in their unvarying sameness, being mainly comprised in sudden onset, with vomiting and diarrhœa, speedily followed by profound collapse. One feature, however, distinguishes the complaint from all others ordinarily occurring in these climes and this is the rapidity with which the tissues are drained of their fluids and thereby a healthy infant is reduced in a very few hours to a wasted one with wrinkled skin, depressed fontanelle, sunken eyes, cold breath, and almost inaudible cry.

As an instance of the completeness of this tissue drainage, I may quote a remarkable case that occurred many years ago in the practice of my colleague, Dr. Eustace Smith. This case was that of an infant with chronic hydrocephalus, who was admitted into the Shadwell Hospital with acute summer diarrhœa. In the course of the last complaint the cerebral ventricles became drained of their distending fluid, with the result that both brain and vault of the skull collapsed upon their bases and, with the infant in a vertical position, half a pint or more of water could have been poured into the concavity produced in the skull and there retained. Oddly enough, doubtlessly owing to the integrity of the more strictly vital centres in the medulla, the infant lived for several days in this condition, and at the post-mortem examination the only remains of the brain were a shapeless disintegrated pulp on the floor of the skull. The severity of the drainage of the tissues and the importance of this element in the complaint may be readily gauged when even the cerebral ventricles can be emptied of their normal fluid.

Another point in the disorder may be briefly touched upon from its extreme importance in prognosis and this is the presence or absence of pyrexia. In every case probably the temperature is raised at the start and sinks below the normal in the condition of collapse. Recovery from the last is usually accompanied by a temporary rise of temperature above the normal. Cases where this rise persists and cases where the temperature remains high without the occurrence of collapse are of infinitely graver prognosis than those in which the temperature is normal. It has been pointed out that the heightened temperature may persist when both diarrhœa and vomiting have practically ceased, showing the toxæmic nature of the complaint. In my opinion too little stress has been laid upon this question of pyrexia, and given

[4] Three patients operated on were shown at the Medical Society of London on Jan. 26th, 1903. In one of them, operated on nine years before, the testicle had certainly grown. It had the testicular sensation markedly. (Transactions of the Medical Society of London, vol. xxvi., p. 332.)

a normal temperature I seldom despair of pulling an infant through.

The main lines of treatment are the same with all of us and the subject indeed does not permit of novelty. My present object is to discuss briefly such of the ordinary measures as I have found most useful in a practice where I have had only too many opportunities of treating the disorder. When seen in the early stages there can be no doubt as to the wisdom of the usual practice of giving a purgative and temporarily withholding all milk. Such measures will usually cure the milder forms of diarrhœa which in hot weather are apt to drift into the severer one at present in question. Occasionally, too, these same measures may be sufficient to cure cases of the acute form when taken early enough. The purgative commonly given is castor oil, and in the milder varieties of diarrhœa this acts admirably. In the acute form I prefer calomel for the following reasons. When vomiting is present castor oil is not likely to be retained, but there is a possibility of calomel being so, and in this last event the drug may be of service in the vomiting itself. In a small minority of cases the diarrhœa is unaccompanied by vomiting, and in such cases castor oil may induce vomiting and so add a further gravity to the complaint. Calomel, moreover, may act as a slight intestinal antiseptic, either from the products into which it is converted before absorption or from the action of any bile it may transfer from the duodenum into the lower bowel. Further, it may act indirectly as a diuretic, a consideration of no small importance where the renal functions are inefficient or wholly in abeyance. The chief use of the calomel is, of course, to clear the intestine of any deleterious material and to check vomiting, but the subsidiary advantages attaching to it, slight as they may be, should not be overlooked in a complaint where assistance of every kind is so urgently needed. As I have said, there is no question as to the value of a purgative, calomel or otherwise, at the start of the complaint, when the temperature is usually high and the tongue furred. When, however, the vomiting and diarrhœa have persisted for some time and where milk has not been administered or not retained, then a purgative is of doubtful advantage or possibly even harmful.

There is no remedy that has any influence over the disease as an entity and the main treatment is that of the symptoms—vomiting, diarrhœa, and collapse—with careful regulation of the diet when food is resumed.

In the great majority of cases vomiting is the earliest symptom, usually preceding the diarrhœa by an appreciable interval. Fortunately, too, it generally ceases some time before the latter. It is, moreover, of more urgent importance, for whilst it persists no nourishment can reach the infant, the accompanying diarrhœa precluding any attempts at temporary and imperfect alimentation by way of the rectum. For the treatment of the vomiting I know of no remedy so successful as that of washing out the stomach with warm water or a weak solution of bicarbonate of sodium. This is most readily and satisfactorily done by means of a soft tube introduced through the nose. After washing out the stomach I often administer a tenth to an eighth of a grain of cocaine in a teaspoonful of iced water. In slighter cases the cocaine is sufficient by itself but in case of non-success after two doses I do not persist with its use. Cocaine, indeed, is a useful remedy for vomiting from many causes in children but its dose has to be regulated carefully. On two occasions I have seen symptoms which were taken to be those of cocaine poisoning from doses of one-fifth of a grain in children one year old.

The foregoing measures can be supplemented with safety by a mustard poultice over the epigastrium and the administration of a mixture of carbonate of bismuth and bicarbonate of sodium, along with a quarter of a minim of dilute hydrocyanic acid. The bismuth and alkali, moreover, aid in checking the diarrhœa as well as the vomiting, but to be effectual they should not be given in less than five grains of each to even the youngest infants. During the time of abstention from food the vomiting is relieved by giving frequent teaspoonfuls of hot water. The hot water is grateful, too, to the infant by relieving the excessive thirst and it helps to ward off collapse. The vomiting is generally most urgent at the onset of the complaint and usually subsides when the food is withheld. It may recommence when food is again resumed and the latter should only be given in very small quantities at frequent intervals. If, in spite of these precautions, the vomiting recurs with food, then the latter should be given entirely cold or even iced if necessary. I have frequently met with a hesitation about administering such cold food to infants, mainly based on the ground that it is unnatural at such an early age. To this objection it may be answered that neither artificial feeding nor acute diarrhœa is a natural condition in infancy and unnatural states may have to be met with unnatural means.

The number of drugs that have been advocated for the treatment of the diarrhœa is legion and their very number is proof of their general inadequacy. By trustworthy authorities resorcin, naphthol, salicylate of sodium, salicylate of bismuth, salol, carbolic acid, tannigen, and numerous other drugs have been advanced as almost specifics, but trial of most of them would not lead me to place any great reliance on any one of them. Regarding one class of drugs, the direct astringents, I concur in the general agreement that they are of little or no value in the early stages of the disorder. They find their usefulness in the more chronic diarrhœa that is so often left by the acute disease. When the motions are peculiarly offensive, a not very frequent occurrence in the acute stage, I have found benefit in a mixture containing a minim each of glycerine, of carbolic, and tincture of iodine. This usually corrects the fœtor of the motions in a day, or a couple of days, and when this has been accomplished other measures for controlling the diarrhœa are much more effectual. For the ordinary run of cases I have found nothing more useful than half grains each of grey powder and Dover's powder, given every four hours, alternately with the bismuth mixture mentioned above. After the acute stage is passed, but where diarrhœa persists, if there be no tendency to vomiting, I usually prescribe oxide of zinc and have found this last quite as effective as, if not more so than, the astringents more commonly employed. Along with it I continue the powders of mercury with Dover's powder.

In the cases with continued pyrexia few successes are attained with any treatment. For these I have now come to rely on small doses of calomel, an eighth to a tenth of a grain, with an equal quantity of Dover's powder, given every two or three hours, and fancy I have been more successful, or less unsuccessful, with such treatment than with any other. Here again, too, the wet pack has occasionally seemed a valuable addition to the other measures. In all cases where the diarrhœa persists a daily irrigation of the large bowel with saline solution for three or four days has often apparently been of advantage.

In a great many instances the infant is already in a state of collapse when first seen and this has to be dealt with promptly, independently of the other conditions associated with it. The readiest and most efficacious remedy is the one most commonly employed, an injection of strychnine, and latter-day experience shows that infants with collapse will bear much larger doses of the drug than were formerly considered either safe or desirable. On one occasion an infant, aged ten months, under my care in hospital was given as much as two minims of liquor strychninæ by injection. The result was all that was desirable; but in spite of this and of the fact that bigger doses may succeed where smaller ones fail, I still think the dose in this instance to have been too large and would not counsel more than one minim for an infant of the age in question but would repeat this after a short interval if necessity arose. The strychnine injection can be followed by a mustard bath with great and conspicuous advantage. In the slighter degrees of collapse a strychnine injection may not be essential, the mustard bath in itself being all that is needed. The bath is beneficial in two ways: in the first place it is a powerful general stimulant and restorative; in the second, by its local action it may help to restore the functions of the skin which are in abeyance. The return of sweating is a favourable sign and often an early one of impending recovery. After the mustard bath it is well to wash out the lower bowel with a pint of normal saline solution, at a temperature of 105° F. This should be slowly injected, by preference with an irrigator, but there is no need to use a long tube. This procedure may be of service in several ways. It helps to clear the large bowel of any irritating or infectious material that may tend to increase the existing toxæmia. Given in the manner indicated, the solution is usually retained for periods varying from half an hour to two hours. Thus some of it is absorbed, and by assisting to restore to the tissues the fluid of which they have been drained the rectal injection becomes a powerful restorative in the collapse. The hot fluid, again,

is of advantage in raising the temperature which may have fallen many degrees below the normal. In states of exhaustion in infants, from any cause, a large warm rectal injection acts as a sedative and will often induce sleep when other means have failed. After the return of the major portion of the injection I am in the habit of advising the employment of a second smaller one, of from three to four ounces. This is usually all retained and often its benefit is speedily shown in an improvement of the pulse. To this second smaller injection can be added any alcoholic stimulant that may be deemed desirable, when vomiting prevents it being given by the mouth. These smaller injections can advantageously be repeated every three or four hours. The other measures can also be repeated if necessary but the collapse when once thoroughly recovered from seldom recurs. Some writers have claimed a remarkable success in the treatment of the complaint by frequent washing out of the stomach and rectum by the methods which I have mentioned. My experience has not been confirmatory of the advantage of such repetition of the measures and I now restrict their employment for the times and purposes already given.

In every stage and condition of the complaint the question of feeding is of paramount importance. There can be no doubt as to the wisdom of the ordinary course of withholding all food during the first 12 hours, or even longer if the state of the infant seems to admit of it. During such time the administration of hot water, mentioned when dealing with vomiting, can be continued with advantage. If the condition of the infant be very urgent small quantities of white wine whey can be tried. This is often retained when every other substance with a resemblance to nutriment will be rejected. It should always be remembered, however, that the amount of nourishment in such whey is extremely small and the amount of alcohol is proportionately large for an infant. The marked improvement in the infant that often ensues from its administration in the early stages of the complaint should not, then, lead to a long continuance with it. Whilst all are agreed as to the advisability of discarding cows' milk at the commencement of the complaint there are differences of opinion as to the appropriate time for its resumption and as to the substitutes to be given for it in the interval. In nearly every case the milk has been directly responsible for the disorder, either through the introduction by its means of bacteria or their products or through its forming a suitable medium for the conversion of the ordinary saprophytic organisms of the intestines into others that are harmful and pathogenic. Clearly, then, on its resumption the milk should be sterilised or pasteurised, as, indeed, it should be throughout the continuance of unduly warm weather. Unfortunately, however, many infants in ill-health have a repugnance to sterilised milk, when not previously accustomed to it, and in such infants sterilised milk will often cause vomiting or be refused. Apart from these considerations, in the early stages of the complaint the digestive system is so disturbed that it is usually totally incapable of dealing with cows' milk at all, and given at such times even sterilised milk may serve as a mechanical source of irritation to the intestines and so prolong the diarrhœa. The digestive organs share in the general and profound inanition which the complaint entails and must themselves be nourished to enable them to perform their functions properly, and how to accomplish this is a main source of difficulty. No assistance is here forthcoming from the use of predigested foods, such as pancreatised or peptonised milks. Such milks are apt to cause looseness of the bowels in healthy infants if too long continued, and under the conditions at present in question the risk is great that under their use the diarrhœa may re-start or be prolonged. The commonest substitutes for cows' milk in the early stages are veal or mutton broth, albumin water, and raw meat juice. Their usefulness at such times is indubitable, but they should not be employed for longer than 24, or at the most 48, hours. I have, it is true, known infants to be kept alive on such substitutes for a much longer time where cows' milk has disagreed but in no single instance have I known a child under such conditions gain weight or in any way be considered to have thriven. Most of them, indeed, died from a slow inanition. Of these substances, the highest in nutritive value is raw meat juice and a fresh home-made preparation is preferable to any of the much-advertised proprietary articles. But any raw meat juice, given in such quantities as to have any real effect in the nutrition of an infant, is apt to give rise to foul, tarry motions after a few days use, a contingency that is far from desirable. Rather than continue for longer than two days with either meat broths or meat juice I would give a trial to one of the patent foods, such as Mellin's given with whey, &c. It is only in emergencies, like the one at present in question, that I have found even an occasional temporary use for such foods. It is very rarely, indeed, that I employ them and I find a good brand of unsweetened condensed milk is far preferable to any one of them. Such a milk is sterile when first opened, is fairly easy of digestion, and when diluted with three parts of water the solution approximates in nutritional value to that of average cows' milk. I usually start with a very dilute solution, one part of the condensed milk to four parts each of barley-water and lime-water, and slightly sweeten, the excess of alkali being useful in the presence of diarrhœa or vomiting. If this is retained and digested the strength of the solution can be increased and after a few days a start can be made gradually to replace the condensed milk by boiled or sterilised cows' milk. If the infant is taking the unsweetened condensed milk well no anxiety need be felt if this substitution cannot be carried out at once, as I have known many infants to be fed with it during the whole of the hot weather or even during many months and still thrive fairly well. But of course a long continuance with it is not to be commended as it is attended with the risks of the probable contraction of rickets and the possible one of scurvy as well. In the difficulties associated with the acute diarrhœa of infants, however, I have found the temporary employment of such milk of the greatest advantage. Many chronic diarrhœas in infants, too, are immediately benefited by the substitution for a few days of unsweetened condensed for ordinary cows' milk. There is a perfectly intelligible prejudice on the part of the profession against condensed milks generally, founded mainly, I believe, on a knowledge of the sweetened brands, most, or all, of which have been righteously condemned. My own preference as to a substitute food for infants is for properly modified fresh cows' milk given, in most circumstances, neither boiled nor sterilised. No unsweetened condensed milk is an ideal food or should replace ordinary cows' milk as a stable one for hand-fed infants, but a temporary trial of a good brand of it can be recommended under the conditions I have indicated. In every case, however, whenever practicable the sooner cows' milk replaces it the better for the infant.

The age of the patients and the severity of the complaint must render the mortality a high one, let the treatment be as prompt and as well devised as possible. Still, the extreme prevalence of the disorder is to be regretted, as it is in a large measure a preventable one, and this with the simplest precautions. As regards the etiology of the complaint, three factors are prominent in the vast majority of cases—the infantile age, hand-feeding, and the presence of unduly hot weather. Severe diarrhœa and vomiting, speedily followed by collapse, can indeed occur in infants at the breast. But such cases are rare compared with the number occurring in the hand-fed and whether all cases are etiologically identical is open to question. One frequent cause for the disorder, then, lies in the food administered and this is, without doubt, the one usually assigned for it—the more thorough bacteriological contamination that cow's milk undergoes in excessive heat. It follows, then, that in hot weather all cows' milk for infantile use should be boiled or, better, sterilised. Whether such boiling or sterilisation of cows' milk should be carried out as a routine practice in all cases of hand-feeding is, however, another question. A contributing cause is the innervating effect upon the digestive system that excessive heat entails and both breast-fed infants and adults share with the hand-fed the tendency to simple diarrhœa during summer weather. In many cases of the acute disorder there is a history of its having followed on a simple diarrhœa of no great severity. During the hottest months, then, it is well to lengthen the intervals between the breast-feedings and in hand-fed infants slightly to lessen both the quantity and strength of the cows' milk meals administered. In both classes any discomfort which the infant might suffer from the reduction in his food can be met by small quantities of plain water being given between the meals.

Lastly, no diarrhœa, however slight, in infants during the summer heat should be lightly regarded and still less be considered as even salutary. A castor-oil purge and the withholding of food for a few hours will promptly cure most

of such simple cases and prove a safeguard against the acute disease. The few simple measures mentioned will, I believe, if carried out in summer weather, lead to a large reduction in the number of cases and their attending mortality.

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AN ANALYSIS OF 300 CONSECUTIVE GYNÆCOLOGICAL LAPAROTOMIES.

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PART II.[1]

THE remarks forming the whole of this part of the paper were originally incorporated in the table itself, but it was found more convenient to print them separately. The numbers are the same as in Part I. and it may be repeated that the cases are *absolutely consecutive;* every case is included in which the author performed abdominal section during the period of time referred to in Part I. It will be apparent that the remarks on each case should be read in conjunction with the other particulars of it given in the table in Part I.

REMARKS.

CASE 1.—A multilocular ovarian cyst of the left ovary of the size of the uterus at full term. The tumour had been tapped on five occasions before operation. It contained thick, brown, soapy fluid. The right ovary was healthy. The peritoneum was washed out with normal salt solution twice. There were firm and extensive adhesions, parietal and intestinal.

CASE 2.—Removal of uterine appendages. Pelvic adhesions were found.

CASE 3.—A tumour of the right ovary of the size of a goose's egg. The left ovary was healthy.

CASE 4.—A right ovarian cyst of the size of a large walnut. It burst on pulling it up and about one drachm of pus escaped.

CASE 5.—The chief symptom was a constant desire to pass urine with difficulty in passing it. There were multiple fibroids, one especially occupying Douglas's pouch. One ovary was not removed.

CASE 6.—The patient was operated upon for cancer of the cervix by supravaginal amputation of the cervix. The opening contracted and it finally closed, causing hæmatometra and double hæmatosalpinx of the part of the tubes immediately external to the uterus. The uterus was dilated to the size of one four months pregnant. An attempt was made to enter the uterine cavity from the vagina; a large vessel was wounded in trying to do so, probably a uterine artery. The hæmorrhage was imperfectly controlled by pressure while preparations were made for abdominal hysterectomy. Both ovaries were cystic and were adherent in Douglas's pouch. The vermiform appendix was adherent to the dilated uterus. The patient seemed fairly well at the end of the operation but had lost much blood previously and she died within 24 hours.

CASE 7.—The right Fallopian tube was closed at its outer end and was dilated; it was adherent to the corresponding ovary. A cyst in the left ovary was punctured but the left ovary was not removed; the left Fallopian tube was healthy.

CASE 8.—The tumours were both dermoids; that on the left side was of the size of a cocoa-nut and that on the right of the size of a hen's egg. Both were removed without opening the cyst wall.

CASE 9.—The tumour weighed five pounds.

CASE 10.—230 ounces of fluid had been drawn off by aspirating the peritoneal cavity about a week before the operation. The tumours appeared clinically to be either malignant or semi-malignant.

CASE 11.—Chronic inflammation of the uterine appendages was present.

CASE 12.—A fixed mass existed in the left iliac region and in the pelvis. It was thought possible that it might be a generally adherent ovarian or more probably a malignant mass. At the operation it was found to be a malignant mass involving, or rather imbedding, the sigmoid flexure. The bowel was opened before the relation of the mass was fully determined. The patient recovered from the exploratory operation but she died from malignant disease nearly a month later.

CASE 13.—A large solitary fibroid weighing six pounds. The left ovary was not removed. Twelve days after the operation the patient developed acute mania and remained insane during the month that she was in the nursing home. Soon after she went home she was taken to Brighton and in a very short time all the mental disorder disappeared and she has remained well ever since. I saw her in 1904 and she was then quite well and following her usual occupation.

CASE 14.—The left tumour was of the size of a uterus seven months pregnant. It contained purulent fluid and was adherent to the intestine extensively by broad, thin adhesions. The right ovary, which was slightly cystic, was of the size of a hen's egg; it also was removed. The peritoneum was washed out with salt solution.

CASE 15. The uterus was enlarged by an interstitial fibroid of the posterior wall to the size of a fœtal head at term. A dermoid of the left ovary of the size of an orange contained two teeth. The patient had had retention of urine twice before operation.

CASE 16.—Tubal pregnancy on the left side causing a large extravasation of blood in the pelvis.

CASE 17.—The tumour reached to the umbilicus. An interstitial fibroid in the anterior wall was undergoing mucoid degeneration; it was of the size of a cocoa-nut. There was a subperitoneal fibroid of the size of an orange attached to the top of the uterus; it was not degenerating. The left ovary was not removed. The right ovary was removed with the uterus.

CASE 18.—The tumours reached to the umbilicus. There was an ovarian tumour on each side. These tumours were densely adherent by old adhesions everywhere and so firmly so to the uterus that the uterus had to be removed in order to complete the double ovariotomy. There were also adhesions which were so densely adherent to the sigmoid flexure that a hole was torn in it (of the size of a pea). It was stitched by a purse-string suture with Lembert's sutures over that.

CASE 19.—This was an emergency case. The pulse was 144 before operation. An intravenous injection of saline fluid was made at the same time as the laparotomy. A fœtus of four months was found free in the peritoneum with a large amount of blood and recent clot. The peritoneum was washed out with saline fluid twice. The patient had had amenorrhœa for eight months till two weeks before admission when she began to have a red vaginal discharge.

CASE 20.—A mass of fibroids reached to the edge of the ribs on the left side. The larger part of the tumour was formed by interstitial fibroids and was softer than the upper portion near the ribs. The left ovary was not removed. The right ovary was removed with the tumour.

CASE 21.—There was free fluid containing jelly-like lumps in the peritoneum. The main tumour reached to the navel, rising from the pelvis. It appeared to be an ovarian tumour and was evidently malignant, as numerous isolated secondary nodules existed at various parts of the peritoneum—e.g., that of the abdominal wall. The patient had had colotomy performed without benefit some time before.

CASE 22.—Hysterectomy and ovariotomy were performed.

CASE 23.—An ovarian tumour reaching up to the umbilicus with adhesions to the appendix and sigmoid flexure extensively and universally in the pelvis. As it was dissected up about four inches of the right ureter were exposed as if cleaned by a dissection. The cyst was so adherent to the uterus that the uterus had to be removed as well. No sign of the other ovary was seen. No peritoneum was available to cover the cervical stump.

CASE 24.—The uterus was enlarged by carcinoma of the body to the size of a uterus two months pregnant. The right ovary was removed with the uterus; the left ovary was not removed.

CASE 25.—The left uterine appendages were chronically inflamed, causing persistent pain. The right appendages were normal and they were not removed. There were pelvic adhesions.

CASE 26.—The left uterine appendages were normal and were not removed. There were slight pelvic adhesions.

CASE 27.—Fibroids. One large interstitial fibroid in the left side of the body of the uterus was softening in the centre; several smaller fibroids were not softening. The whole mass reached half-way between the umbilicus and the ensiform cartilage. The right ovary was healthy and was not removed; the left formed an ovarian cyst of the size of a duck's egg and was removed with the tumour. The mass was removed. It weighed 5 pounds 10 ounces.

CASE 28.—A left pyosalpinx, which burst on freeing it from its adhesions, and a right hydrosalpinx. There were dense pelvic adhesions.

CASE 29.—The patient was vomiting and had a temperature of 101° F. before the operation. She died at the beginning of the third day. There were moderate pelvic adhesions.

CASE 30.—A left ovarian tumour reached nearly to the umbilicus. Double uterus. Both uteri from the abdominal aspect were normal, except that each had only one set of uterine appendages to it. The left tumour reached forward from behind between the uteri and was adherent to the bladder. The right ovarian tumour was of the size of a duck's egg. The vaginal portion of the cervix was single. There were intestinal, pelvic, and vesical adhesions.

CASE 31.—The tumour reached two inches above the umbilicus and the uterus was enlarged by a single soft interstitial fibroid in the posterior wall. On section the surface of the fibroid was like raw beef. The mass removed weighed four pounds. The left ovary was removed with the tumour; the right was not removed.

CASE 32.—Ovarian tumours of the size of a child's head a year old. They contained thin, brownish-black fluid. The right tumour wall was very friable. The peritoneum was washed out with salt solution. The patient was very stout; there was a good deal of distension for the first three days after operation.

CASE 33.—Multilocular ovarian cyst of the right side reaching half-way up to the umbilicus. It contained brown fluid.

CASE 34.—The patient was very fat. Convalescence was uninterrupted till the sixteenth day, when a sudden rise of temperature to 104° F. occurred. The temperature fell next day and remained normal. No explanation of the rise of temperature was to be found but it occurred at about the time when the menstrual period was due. Pelvic adhesions were present.

CASE 35.—The Fallopian tube removed contained a three months fœtus; the fimbriated end could not be seen. There was a good deal of blood free in the peritoneum.

CASE 36.—Removal of the appendages.

CASE 37.—The tumour reached to the umbilicus; it was the uterus enlarged by multiple fibroids.

CASE 38.—The right tube formed a hæmatosalpinx; there was no blood in the peritoneum. The left Fallopian tube was dilated, thickened, and closed. A thin flake of this tube was left where densely adherent to the rectum. There was seen a curious short, broad, dense adhesion between the small intestine and the sigmoid flexure. There were adhesions to the rectum also.

CASE 39.—Both Fallopian tubes were closed, dilated, and thickened. Slight pelvic adhesions were present.

CASE 40.—The patient appeared to be doing well for several days except that vomiting never quite stopped. On Feb. 7th, 1902, she had passed flatus and the bowels acted once. Gradually distension set in with pain, the vomiting continued, and the pulse gradually rose. Some flatus still passed but no motion after the first. As on Feb. 10th it seemed to me that she had intestinal obstruction I called in a surgeon who found a coil of small intestine firmly adherent across the seam uniting the peritoneal flaps over the stump. All bowel above this was distended; all below was collapsed. The surgeon opened the bowel and put in a glass tube but the patient died three hours later while a saline injection was being given under the left breast.

CASE 41.—Very long incision. There were multiple fibroids of the uterus; many were lying behind and below the peritoneum. Both ovaries were removed with the tumour. The stitches were all out by

[1] Part I. was published in THE LANCET of July 8th, 1905, p. 69.

the ninth day and the wound was strapped. Five days later a coil of intestine lay under the dressing, rather firmly adherent to the edge of the wound which had burst open. The coil was separated and put back. The general peritoneal cavity was reopened. A small gauze drain was left in for five days. Afterwards recovery was uninterrupted.

CASE 42.—A tumour of the left ovary of the size of a uterus at the sixth month; there had been hæmorrhage into the cavity of the cyst. Although the patient recovered well after the operation some months later she had general disseminated cancer of the peritoneum from which she died. The cyst had burrowed into the broad ligament to a moderate extent.

CASE 43.—The tumour contained 40 ounces of fluid; the pedicle was twisted and there was much blood inside the tumour, as well as papillary intracystic growths. The patient was three months pregnant at the time of the operation. A long incision was necessary owing to adhesions to the abdominal wall. The left ovary was healthy. The patient did not abort.

CASE 44.—The right tube, the seat of the pregnancy (tubal mole), formed a swelling of the size of a goose's egg. The patient was watched for seven days in hospital before operation. She was examined on the morning of March 8th, 1902, by the obstetric registrar. Soon after she had pain in the abdomen, vomiting, and rapid pulse. The operation was performed at 2.30 P.M. There were large clots in the peritoneum and much fresh free blood. The tube was adherent rather firmly in the pelvis and to the back of the uterus.

CASE 45.—The right multilocular ovarian cyst reached up to the umbilicus. The left ovarian cyst was of the size of a duck's egg. There was free fluid in the peritoneum.

CASE 46.—A fibroid reaching up to the umbilicus. On section it was found to be undergoing cystic change. There were lamellæ of yellowish material stretching across the cavities, suggesting fatty degeneration. The right ovarian cyst was of the size of a duck's egg; it contained pasty brown material. The left ovary was not removed.

CASE 47.—The uterine appendages (both sides) were removed with the uterus. On opening the uterus a submucous fibroid was found occupying its cavity that might have been removed by morcellement from below, but there were numerous other fibroids interstitial in situation. The whole mass was of the size of a pregnant uterus at three months.

CASE 48.—The tumour was a subperitoneal fibroid of the size of a fœtal head at full term, situated on the anterior surface of the uterus. The patient was five months pregnant at the time of the operation. The tumour was very moveable and was thought to be an ovarian dermoid. The patient did not miscarry.

CASE 49.—The left tube, the seat of the pregnancy (tubal mole), was removed. The appendages on the right side were left alone. The left upper extremity was paralysed for six weeks; ultimately the use of it was completely recovered.

CASE 50.—Chronic inflammation of the uterine appendages. Pelvic adhesions were present.

CASE 51.—Removal of the appendages. The left ovary was firmly adherent to the back of the broad ligament.

CASE 52.—A right ovarian cyst reaching above the navel; it had a very broad short pedicle. The left ovarian cyst was of the size of a hen's egg; it was very adherent in the pelvis. A part of the right tumour was very hard, with hard papillomata on the peritoneal surface and also inside the cyst.

CASE 53.—The left ovarian cyst (suppurating), of the size of a fœtal head at term, pressed down behind the uterus which was moderately enlarged by multiple fibroids. The left tube, dilated to the size of the ball of the thumb, was stretched over the ovarian cyst. This latter was very adherent in the pelvis but it was removed without rupture. It contained very fœtid pus. The right uterine appendages, matted together by chronic inflammation, were also removed. The patient had had a high temperature for several weeks before the operation.

CASE 54.—The patient was very fat. She had bronchitis and emphysema and could not lie down; also chronic Bright's disease. The lower abdominal parietes became œdematous and the sutures there suppurated with gaping of the wound. This condition extended upwards and finally the whole wound separated, so that its edges were eight inches or more apart. Through the interval the intestines were visible, thinly covered with lymph. The edges of the wound could not be kept together. The patient died on the twenty-seventh day after operation.

CASE 55.—Practically unilocular cyst of the left ovary; it contained 14½ pints of dark thin fluid which weighed 18½ pounds. The uterus showed several small subperitoneal fibroids. The right ovary was normal. The patient had a carotid aneurysm on the right side.

CASE 56.—A suppurating ovarian cyst on the right side reaching to the umbilicus had burrowed between layers of the broad ligament so as to be immoveable before enucleation. In removing the base of the cyst three inches of the right ureter were cleaned and exposed; this was seen to contract in vermicular manner on touching. The body of the uterus had to be removed to remove the tumour completely. The left ovary was also cystic and was removed. A gauze drain was left in for five days. The patient was said to have had ovariotomy done at a special hospital 15 years before.

CASE 57.—The patient was watched in hospital for nearly four weeks before operating (tubal mole). The left Fallopian tube was the seat of the pregnancy; the fimbriated end of the tube was open. The left ovary was cystic, it being of about the size of a hen's egg. The right ovary was also cystic and was larger than the left. The right Fallopian tube was normal. The pregnant tube was adherent to the omentum and sigmoid flexure.

CASE 58.—The tumour reached to the left ribs. A very large incision was necessary. The patient had repeated floodings before operation and was intensely anæmic. She was kept in bed for two weeks before the operation. Before the operation on examination the vaginal cervix could barely be reached. There were multiple fibroids and on opening the uterus one large submucous fibroid nearly free in the uterine cavity.

CASE 59.—A left ovarian cyst which reached half-way from the umbilicus to the ensiform cartilage. The pedicle was twisted. Green fluid was present.

CASE 60.—A left ovarian cyst of the size of the uterus at term. It contained fluid that would hardly flow through the cannula. The right ovarian cyst was of the size of the uterus at three months. The patient had had amenorrhœa for ten weeks before the operation.

CASE 61.—The tumour reached the ribs on the left side. A month after the operation a loop of bowel passed through a hole in the omentum and became strangulated. Before the condition was recognised the patient became too bad to interfere. The cause was found on post-mortem examination. There were numerous adhesions between the small intestine and sigmoid flexure and the back of the tumour.

CASE 62.—Chiefly cervical fibroids undergoing cystic change and lying almost wholly behind the peritoneum. Four inches of the left ureter were dissected from the lowest part of the tumour. The mass weighed over 13 pounds. (For a full report of this case see the Transactions of the Medical Society, vol. XXVI., 1903, p. 235.)

CASE 63.—The operation was undertaken for a large fibroid of the right broad ligament blocking the pelvis. It was performed a few days before full term. Both mother and child did well. (For a full report of this case see THE LANCET of Jan. 17th, 1903, p. 157.)

CASE 64.—A large interstitial fibroid of the posterior uterine wall not involving the cervix. The right ovary was cystic and was removed with the tumour. The left ovary was not removed. The chief indications for operation were abdominal pain and menorrhagia.

CASE 65.—Double hydrosalpinx; both fimbriated extremities were closed. There were slight pelvic adhesions.

CASE 66.—Left multilocular ovarian cyst, containing 16 pints of greenish-yellow fluid which weighed 12 pounds. The patient had had only ten years of married life and had been a widow for 26 years.

CASE 67.—A left pyosalpinx which was adherent to the rectum and the bladder; it burst as it was being separated. A right pyosalpinx was removed entire. The peritoneum was washed out with a saline solution. A gauze drain was left in for five days.

CASE 68.—Uterus enlarged to size at two to three months. Interstitial fibroid was suspected but was not found. The enlargement was simply due to general hypertrophy of the uterine tissue. The patient had suffered from menorrhagia for a long time and had been curetted twice before with only temporary benefit.

CASE 69.—A dermoid tumour of the right ovary which was of the size of the fœtal head at term. The pedicle was twisted. There were omental adhesions. A fibroid polypus attached in the body of the uterus had been removed a month before.

CASE 70.—A right ovarian cyst which extended up to the umbilicus. The pedicle was twisted.

CASE 71.—The tumour reached nearly to the umbilicus. The patient was very anæmic and had had menorrhagia for six years and also severe pain in the lower abdomen and left iliac region. There were parietal adhesions.

CASE 72.—A left ovary which was moderately cystic.

CASE 73.—The whole mass was of the size of the fœtal head at term. There were extensive adhesions in the pelvis and part of the tumour had to be enucleated out of the right broad ligament. The right Fallopian tube was much enlarged and thickened and communicated with the ovarian part of the cyst by an aperture admitting a probe easily.

CASE 74.—The left ovary and tube were removed. There were adhesions to the rectum, the broad ligament, and the back of the uterus. The uterus was adherent to the rectum. The right ovary was adherent to the back of the uterus and the broad ligament; it was freed from its adhesions but was not removed. The right Fallopian tube was normal.

CASE 75.—The right ovary was of the size of a hen's egg and was cystic. The left ovary was not identified. There were dense adhesions to the back of the uterus and in the pelvis. The patient died from peritonitis on the third day. Double pyosalpinx.

CASE 76.—Chronic inflammation of the uterine appendages with firm pelvic adhesions.

CASE 77.—The tumour reached the umbilicus and was somewhat hour-glass shaped. The upper part had undergone cystic change. The right ovary was enlarged and was removed with the tumour; the left was not removed.

CASE 78.—A right ovarian cyst of the size of a uterus at term. Before operation the temperature was 103° F. and the pulse was 112. The patient was taken ill suddenly three days before operation with severe abdominal pain and vomiting. At the operation the pedicle was found to be twisted three times. There was a good deal of free blood-stained fluid in the peritoneum but no peritonitis; the left ovary was cystic and was also removed.

CASE 79.—The uterus was enlarged to about the size of that at three months by carcinoma of the body. There was a fibroid (interstitial) in the anterior uterine wall near the fundus.

CASE 80.—Left ovarian cyst, mainly unilocular, of the size of an orange.

CASE 81.—The tumour occupied the greater part of the abdomen and the mass removed weighed 12½ pounds. There was a large interstitial fibroid of the posterior uterine wall which on section showed mucoid and cystic changes. The length of the uterine cavity in the mass removed was six and a half inches.

CASE 82.—A right ovarian cyst of the size of a child's head; the pedicle was twisted three times. The patient was some ten weeks pregnant at the time of operation and miscarried three days after it.

CASE 83. Large prominent tumour in the lower abdomen, reaching to the umbilicus. There was no free blood on opening the abdomen; the uterus was close under the wound. The omentum was adherent over the mass behind and to the left of the uterus. The pregnancy was in the left Fallopian tube; it was removed. The fœtus was three inches long. The right Fallopian tube, being thickened and closed, was separated from a mass of adhesions and was also removed.

CASE 84.—Left ovarian cyst of the size of a large orange. The left Fallopian tube was slightly enlarged and closed externally. The right Fallopian tube was enlarged, closed, and adherent to the ovary; the mass so formed was firmly adherent in the pelvis.

CASE 85.—The right Fallopian tube was dilated to the size of a large potato in its outer portion and this was adherent to the intestine, omentum, and abdominal wall. Its pedicle consisted of two and a half inches of undilated Fallopian tube and was twisted several times on itself. The left Fallopian tube was of the size of an orange with only a few adhesions to it. Both dilated tubes were removed without interfering with the ovaries, which were healthy. The patient had two acute attacks of illness with symptoms of twisted pedicle. She was a virgin.

CASE 86.—The patient was doing quite well until the evening of the fourth day when, while an enema was being given, she suddenly became faint and collapsed and died in two hours. The cause must have been either syncope, which not rarely happens in old subjects when an enema is given, or pulmonary embolism.

CASE 87.—The tumour reached nearly to the umbilicus. The left

ovary was of the size of a hen's egg, slightly cystic. On section it showed a well-marked large corpus luteum indistinguishable from that met with in pregnancy, though five years had elapsed since the last confinement and she had been a widow nearly five years. The fibroid was interstitial and showed on section mucoid and calcareous degeneration. The right ovary was damaged and bled rather freely and it was thought safer to remove it.

CASE 88.—The right ovary showed commencing cystic change.

CASE 89.—The operation was performed for obstruction due to the presence of a large interstitial cervical fibroid which in the later months prevented the cervix being reached per vaginam on examination. Both mother and child did well. (For a full report of this case see THE LANCET of Jan. 17th, 1903, p. 157).

CASE 90.—Both Fallopian tubes were dilated to the size of the ball of the thumb and adherent to corresponding ovaries. Masses so formed were firmly adherent in the pelvis, especially to the rectum, from which they were separated with difficulty. Some pus escaped on separating the adhesions. A gauze drain was used.

CASE 91.—This was an emergency operation. The patient was admitted with all the symptoms of severe internal hæmorrhage. The pulse was 130, irregular, and feeble. Her face was very pale and she was so bad that intravenous injection of salt solution (four pints) was done while the operation was in progress. A large amount of fresh blood and clot was found in the peritoneal cavity. The pregnancy was in the right Fallopian tube which was removed in the usual way.

CASE 92.—Both ovaries and tubes were removed with the uterus. The right ovary formed a tumour of the size of a goose's egg which on subsequent examination was found to be carcinomatous.

CASE 93.—The patient was laid up with fever and abdominal pain some weeks before operation. There was swelling in the lower abdomen reaching half-way to the umbilicus. On opening the abdomen the surface in view over the swelling consisted of coils of intestine and omentum roofing the underlying swelling. On separating several coils of intestine pus came up from the region of the left tube and what was believed to be the left tube was separated from the left side of the pelvis and removed. The same was done on the right side. A gauze drain was used. The operation was extremely difficult.

CASE 94.—The left Fallopian tube was dilated and tortuous; it was adherent to the rectum and left ovary. The adhesions were separated and the tube was removed. It contained a tubal mole. The left ovary was not removed.

CASE 95.—The freely moveable lump in the abdomen of the size of a child's head was a tumour of the left ovary. The swelling felt in the left side of the pelvis on vaginal examination was a tumour of the right ovary. Both tumours were removed without puncturing. There was some clear free fluid in the abdominal cavity. This patient did quite well as regards this operation but some months later she died with a malignant growth in the region of the liver.

CASE 96.—A left ovarian cyst reaching to the umbilicus; it was densely adherent in the pelvis and to the intestine. The right ovarian cyst was of the size of a duck's egg. Numerous small subperitoneal fibroids were seen on the uterus.

CASE 97.—The tumour reached to the umbilicus. Marked anæmia was present. The right ovary was slightly but definitely cystic; both it and the left ovary were removed with the tumour. The peritoneal surface of the uterus was studded with curious granular elevations varying in size from that of a millet seed to a quarter of an inch in diameter. The appearance was not unlike that seen when the peritoneum is affected by secondary malignant growths. There were none, however, elsewhere. On section the uterus showed four submucous fibroids in its cavity of the size of a billiard ball and numerous interstitial fibroids varying in size.

CASE 98.—Both Fallopian tubes were dilated to the size of the thumb and were firmly adherent in the pelvis, also to the omentum, intestine, uterus, and vermiform appendix. The last was adherent at the bottom of Douglas's pouch. There was no pus in the tubes. There were several fibroids in the uterus. The patient was very anæmic and had been losing blood daily for some time before operation.

CASE 99.—A right multilocular ovarian cyst of the size of a uterus at term. It contained clear gummy fluid, coagulating at once on exposure to air. The fluid would not flow through the cannula. The left ovary was healthy.

CASE 100.—An emergency operation for ruptured extra-uterine gestation. The abdomen was full of blood and clots. The pregnancy was in the left Fallopian tube. The ovum had escaped into the peritoneum and was not identified among the clots. An unusual point was the firm adhesion of the pregnant tube to the sigmoid flexure, and the broad ligament could not be transfixed and tied till this was separated. The left ovary contained a well-marked corpus luteum. Intravenous injections of salt solution and brandy were made during the operation.

CASE 101.—Both tubes were dilated and were adherent to the ovaries. The masses so formed were firmly adherent in the pelvis. The right ovary formed a cyst of the size of a Tangerine orange. The pedicle was friable near the uterus on the right side and the ligature cut through there. A ligature was passed with a sharp needle through the uterine tissue and this controlled the bleeding. A gauze drain was employed on account of the oozing. Laparotomy had been done previously by someone else but nothing had been removed.

CASE 102.—There was chronic inflammation of the right uterine appendages. There were slight adhesions.

CASE 103.—Chronic inflammation of the left uterine appendages was present. There were slight adhesions.

CASE 104.—Both tubes were considerably dilated and were firmly adherent to the ovaries and in the pelvis. Removal without bursting was effected. There was no pus but some turbid greyish-white fluid.

CASE 105.—The right ovarian cyst was of the size of a child's head. It was very adherent to the intestine; it also burrowed deeply between the layers of the broad ligament. The contents would not flow through the cannula, so removal in entirety was effected. The left ovarian cyst was rather smaller and was less adherent; this also required enucleation. A gauze drain was passed into the raw surface left after enucleating. This cyst contained extensive soft papillary growths in its interior.

CASE 106.—The tumour reached nearly to the umbilicus and had caused retention of urine. On opening the abdomen the surface of the tumour presented no irregularity except where there was a small subperitoneal fibroid of the size of a pea. The colour and general aspect were extremely like that of the pregnant uterus. Great difficulty was found in getting the tumour out of the wound. This was only possible after cutting and tying the upper parts of the broad ligaments and with the aid of an assistant pushing up the tumour from the vagina. Afterwards it was found that there was a large soft interstitial fibroid of the anterior uterine wall extending also into the supravaginal cervix.

CASE 107.—An emergency operation; supposed to be a case of ruptured extra-uterine. The patient was extremely collapsed and almost pulseless. Amenorrhœa had lasted for two months. On opening the abdomen it was found to be a case of intestinal obstruction due to a band, which was divided. The uterus was evidently two months pregnant and there was a small simple ovarian tumour of the size of an orange on the right side. This was removed. The patient died about eight hours later. The bowels acted six times between the time of the operation and the patient's death.

CASE 108.—On opening the abdomen a swelling was found reaching a hand's breadth above the pubes. It was roofed over by adherent omentum, sigmoid flexure, bladder, cæcum, and vermiform appendix. On separating these a cavity was opened up containing a mass of clot six inches long and three inches thick, below and behind the uterus. The left Fallopian tube was the seat of the pregnancy and it was removed.

CASE 109.—The ovaries were definitely enlarged, so they were removed with the uterus which contained three interstitial fibroids.

CASE 110.—There was chronic inflammation of the uterine appendages.

CASE 111.—Chronic inflammation of the uterine appendages was present and there were dense pelvic adhesions, especially to the rectum.

CASE 112.—The right tube was the seat of the pregnancy; its outer end was widely dilated and had evidently allowed the mole found in the pelvis to be extruded. The right appendages were removed. The left tube was closed and dilated and so it was also removed. The mole was of the size of a Tangerine orange. An emergency operation.

CASE 113.—Both sets of uterine appendages were removed with the uterus.

CASE 114.—An ovarian cyst containing 108 ounces of thin black fluid. There were dense adhesions between the lower back part of the tumour and the back of the right broad ligament and the back of the uterus. A thin layer of uterine tissue had to be removed to get away the cyst completely. Several ligatures had to be passed through the uterine tissue with a sharp needle in a handle.

CASE 115. A left multilocular ovarian cyst of the size of an ordinary potato was lying in front of the uterus. The right ovary was definitely enlarged by cystic changes but was smaller than the left.

CASE 116.—A right ovarian cyst of the size of a child's head with a twisted pedicle. There were a little free fluid in the abdomen and a great deal of fresh blood in the cavity of the tumour and in the tissues beyond the twist.

CASE 117.—The operation was performed one week before full term. The right Fallopian tube was not dilated but was found to be closed externally. A loop of the left Fallopian tube was removed.

CASE 118.—The tumour reached up to the umbilicus; it had been previously diagnosed as fibroid. There was some fever before operation. Extensive enucleation from between the layers of the left broad ligament was required.

CASE 119.—The tumour reached up to the umbilicus. A tubo-ovarian cyst on each side required enucleation at the lowest part on each side. The gap left was stitched together.

CASE 120.—A lump was felt of the size of a cocoa-nut. It was thought to be a suppurating ovarian. There were high temperature and pain. At the operation found to be due to a mass of omentum and intestine adherent. On separating the adhesions fœtid pus escaped. There was a small hole in the bowel which was made while separating the adhesions. It was stitched up. No cause for the abscess was discovered. The appendix was healthy.

CASE 121.—Both Fallopian tubes were closed; they were not much dilated. There were adhesions to the vermiform appendix and the sigmoid flexure.

CASE 122.—A tumour reaching to one and a half inches above the umbilicus. On opening the abdomen isolated secondary nodules were found on the parietal peritoneum and a good deal of free fluid. The tumour evidently was malignant.

CASE 123.—A tumour of the size of a pregnant uterus at seven months. It weighed nine pounds. There was a single large interstitial fibroid in the anterior uterine wall undergoing extensive mucoid degeneration. The right ovary was not removed.

CASE 124. A right ovarian cyst which was suppurating. It had burrowed between the layers of the broad ligament and was very close to the uterus internally and to the pelvic wall externally. The omentum was widely adherent to the bladder and roofed in the tumour. The tumour required extensive enucleation and the ligature of many vessels. The left Fallopian tube was dilated to the size of a thumb and was adherent to its ovary which was also removed. The gap in the right broad ligament was closed with fine silk.

CASE 125.—There was chronic inflammation of the left uterine appendages. The Fallopian tube was dilated and closed. The left ovary formed a cyst of the size of a duck's egg; it was closely adherent to the sigmoid flexure and required scissors to separate it. The right ovary and tube were normal.

CASE 126.—A tumour of the size of a uterus at three months. There was menorrhagia. The cervix was dilated. A sessile fibroid at the fundus was found which could not be removed from below. Abdominal hysterectomy was performed. Both ovaries, which were of the size of a hen's egg, were also removed.

CASE 127.—The patient had had the uterine appendages removed for fibroids some years before. There were coils of intestine adherent closely under the old scar which had to be separated with great care before the general peritoneal cavity was reached. The bowel was damaged over an area of the size of a sixpence. Four Lembert sutures were required. The tumour was absolutely fixed by dense adhesions to the floor and sides of the pelvis. The only thing to do was to cut into the tumour about the level of the internal os. Some difficulty was experienced in catching the left uterine artery owing to the bulk of the tumour being in the way. The tumour was gradually dissected from its dense adhesions. The left ureter was seen during dissection. A gauze drain was passed through into the vagina.

CASE 128.—The tumour reached to the umbilicus. There were multiple fibroids. One ovary was left. The mass weighed six pounds.

CASE 129.—A fibroid of the right ovary of the size of a child's head.

There was no free fluid in the peritoneum. The tumour was calcified on its surface in various places. There were no adhesions. The left ovary was healthy.

CASE 130.—The operation was performed for menorrhagia. The left ovary was cystic and of the size of an egg and was removed with the tumour. The right ovary was not removed.

CASE 131.—A left ovarian cyst of the size of a uterus at seven months. The pedicle was twisted. There were slight adhesions; the pedicle was thick and œdematous; it was tied in sections. The right Fallopian tube was dilated to the size of the thumb and was adherent in the pelvis. The right ovary formed a cyst of the size of a hen's egg.

CASE 132.—A small ovarian cyst of the size of a hen's egg, which caused menorrhagia.

CASE 133.—A left ovarian cyst of the size of an orange; it was adherent to the rectum and elsewhere in the pelvis. The right ovary was decidedly enlarged so it was removed as well.

CASE 134.—The left Fallopian tube was dilated to the size of a cocoanut and contained a tubal mole. It was removed. There were many recent adhesions.

CASE 135.—A left ovarian cyst of the size of a uterus at term. It had grown between the layers of the broad ligament and raised the peritoneum from the left iliac fossa, so that the peritoneal surface of the tumour was continuous with that of the abdominal wall some two to three inches to the left of the incision. It was enucleated. Several inches of the left ureter had to be dissected from the base of the cyst. It contained half a bucketful of thin brown fluid. There were papillary growths on the inner surface of the cyst. There were a right ovarian cyst of the size of a duck's egg and a right hydrosalpinx.

CASE 136.—A tumour of the size of a uterus at four months. The right ovary was not removed.

CASE 137.—A left ovarian cyst of the size of a small cocoanut. The left Fallopian tube was dilated. The mass was fixed everywhere in the pelvis and above to the bladder and omentum. The right Fallopian tube was dilated to the size of the thumb and was adherent to the ovary; this was also removed.

CASE 138.—A left ovarian cyst containing nine pints of straw-coloured fluid. There was a right ovarian cyst of the size of a duck's egg.

CASE 139.—Both sets of uterine appendages were removed with the uterus. The lower angle of the wound broke down about two weeks after operation and a sinus formed from which in a few days large quantities of pure bile passed daily. This gradually diminished and the wound finally closed completely.

CASE 140.—A right ovarian cyst of the size of a child's head and containing straw-coloured fluid. There was a left dermoid ovarian cyst.

CASE 141.—A degenerating subperitoneal fibroid of the size of a uterus at term. It was supposed to be an ovarian cyst. The uterus was not lengthened. The tumour was found on section to be undergoing extensive cystic change and contained much jelly-like material. The right ovary was not removed. Omental adhesions were present.

CASE 142.—A large fibroid in the anterior uterine wall which caused a serious twisting of the uterus on its axis and partly beneath the peritoneum, so that the tumour could not be brought out of the wound till the peritoneum had been stripped down. The left ovary was not removed.

CASE 143.—The right ovary was not removed. On section of the fibroid it was found to contain a cavity admitting two fingers lined by smooth membrane.

CASE 144. The patient had had anterior and posterior colporrhaphy and amputation of the vaginal cervix for prolapse two years previously. The right ovary was not removed. The uterus was of the size of a large cocoanut; it weighed two pounds.

CASE 145.—A left ovarian cyst reaching to the umbilicus and a right ovarian cyst of the size of an orange. Both pedicles were twisted. The tumours were adherent in the pelvis, also to the omentum and bladder. Both cysts contained dark thick fluid. The patient had had an early miscarriage, the ovum being of the size of a walnut, on June 12th, 1903.

CASE 146.—A suppurating right ovarian cyst of the size of a large orange. The right Fallopian tube was thickened, enlarged to the size of a thumb, and was adherent to the tumour. There were extensive pelvic adhesions. The cyst burst during removal. The patient had undergone ovariotomy for left ovarian cyst some time before.

CASE 147.—The tumour occupied the greater part of the abdomen. There were multiple fibroids; one posteriorly and one anteriorly had grown under the peritoneum and could not be brought up till the peritoneum was incised. Both ovaries were removed owing to their position.

CASE 148.—The tumour was of the size of a uterus at five months. The right ovary was not removed. There were a good many rather recent adhesions and in the region of the left tube several loculi formed by serous perimetritis. The left Fallopian tube was dilated and the left ovary was twice the normal size.

CASE 149.—The intestines and omentum were matted so as to form a roof to the pelvic cavity. On separating these the right Fallopian tube was found to be dilated, containing dark firm blood clot, presumably a tubal mole. The case was supposed to be chronic salpingo-oöphoritis before operation.

CASE 150.—A right multilocular ovarian cyst of the size of a uterus at seven months; it contained thick black fluid and was extensively adherent in Douglas's pouch. The pedicle was twisted. The uterus was enlarged to the size of a four months gestation by multiple fibroids. The left ovary was three times the normal size and was also removed. On section it showed a well-marked corpus luteum like that of pregnancy.

(To be continued.)

GLOUCESTERSHIRE COMBINED SANITARY DISTRICT.—At the meeting of the Cirencester rural district council held on July 17th a resolution was read from the Gloucestershire sanitary authorities protesting against the action of the Chipping Sodbury rural district council in withdrawing from the combination without communicating with the other authorities.

TUBERCULOUS DISEASE OF THE CÆCUM, WITH NOTES ON A CASE.

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TUBERCULOUS disease of the cæcum must be a comparatively common occurrence, as Fenwick and Dodwell after examining a large number of cases of tuberculosis found that the cæcum was involved in 85 per cent. of all cases of intestinal tuberculosis. The infection of the cæcum may be either primary or secondary, the latter being most common in children and young adults, the former between the ages of 25 and 40 years. There are two main types, the ulcerative and the hyperplastic. If it occurs during the active progress of pulmonary disease it usually pursues an ulcerative or destructive course with varying rapidity, but if secondary to a healed pulmonary lesion, or if it is primary, then the infection is of a mild type and the pathological changes are of a chronic hyperplastic character. It is of these latter cases that I wish to speak and of which I recently had one under my care in the Royal City of Dublin Hospital.

The best account of this disease and of the literature on the subject that I can find is Crowder's article in the *American Journal of the Medical Sciences*. According to him the chronic hyperplastic form of tuberculosis of the cæcum, giving rise to great thickening of the walls and narrowing of the lumen of this part of the intestine, was first described by Durante in 1890. In 1891 Billroth demonstrated a resected cæcum which presented itself clinically as a large hard swelling in the right iliac region, in every respect resembling a carcinoma. Hartman and Pilliet in the same year in Paris called attention to a form of tuberculous typhlitis which accurately resembles a carcinoma and which is not to be distinguished from it by the naked eye. In 1892 Sachs collected 12 cases from the literature and added one of his own. There was no caseation of the retrocæcal glands or ulceration of the mucosa, and the lumen was almost obliterated. Conrath collected 84 cases which had been surgically treated with the low mortality of 16·7 per cent. Crowder himself reported two cases, in the second of which there were combined malignant disease and tuberculosis, there being a perforating tuberculosis of the cæcum which had been secondarily invaded by carcinoma. The mucosa is usually ulcerated but may be merely thickened and covered with papillomatous masses of varying size. The wall of the bowel is thickened, firm and irregular, the lumen being either dilated or contracted; the enlargement and thickening of the cæcum are due to a hyperplasia and not to a compensatory hypertrophy; it is inelastic and rigid from tuberculous infiltration. The tendency is usually for the disease to spread along the colon and not into the ileum, but in cases mentioned by both Esmarch and Sachs there was a similar tuberculous tumour formation in the lower part of the ileum. The retrocæcal glands are practically always involved and later the mesenteric glands also. The appendix is not usually involved to any great extent, but in a case of Thierry and Routier it had undergone changes similar to those of the cæcum.

The characteristic clinical feature of these cases is the development of a tumour which is hard and nodular, moveable but usually only towards the middle line, not in an outward direction, not moving with respiration, and giving a hollow, impaired tympanitic note on percussion. The patients are frequently well nourished but there is usually some disturbance of digestion, attacks of colicky pain occurring at irregular intervals without any apparent cause. "Carcinoma of the cæcum presents symptoms so identical in nature that it is impossible to differentiate the two and even after removal the specimen has often been regarded as malignant until subjected to microscopical examination."

On March 20th last I was asked by my colleague, Dr. T. G. Moorhead, to see a patient of his suffering from a tumour in the right iliac fossa. The following is an account of the

case. The patient, a female, aged 23 years, was admitted to the Royal City of Dublin Hospital on March 11th complaining of swelling of the left leg, pain in the left hip, pains in the stomach, palpitation of the heart on exertion, giddiness, headache, and general weakness. One sister died from consumption; several brothers and sisters were also dead but the cause of death was unknown. The patient had been more or less delicate since birth; for the past three years she had been getting worse and she had been confined to her bed, only getting up for an hour or two daily, for some time prior to admission to another Dublin hospital last January. Her chief complaint then was the pain in the left hip; this pain was most marked at night and travelled down the back of the leg to the ankle. She obtained no relief during a month's stay in hospital. For a month before her admission to the Royal City of Dublin Hospital she had been troubled with her stomach; she vomited a few times after taking food and had pain of a stabbing character shooting up from the right side, across the abdomen, and through to the back; it was increased by eating, relieved by pressure, and came on immediately after taking food. She stated that she had always been subject to constipation.

On examination the patient was very anæmic. Her teeth were very carious. The thorax was normal. The left hip was normal; there were no impairment of movement, no pain on movement or pressure, and no deformity. Great pain and tenderness were present on pressure over the spines of the first and second lumbar vertebræ. There was marked but not absolute rigidity of the lumbar spine; pain in this region was caused by downward pressure on the shoulders or vertex. There was no abnormal prominence or angular curvature. The abdomen on inspection appeared to be normal; on palpation very marked hyperæsthesia was present, mapping out in a very beautiful manner the eleventh dorsal segment of Head on the right side. Some pain was present on deep pressure over the right iliac fossa. In this region a large, somewhat irregular tumour could be felt; this was freely moveable in a lateral direction but not in a vertical and was dull on percussion. There was no history suggesting previous attacks of appendicitis or of the passage of blood or pus per rectum. Vaginal and rectal examination revealed nothing further except that the tumour did not appear to be connected with any of the pelvic organs. Owing to the great hyperæsthesia there was considerable difficulty in examining the tumour, so the patient was examined under an anæsthetic on March 23rd. The tumour was then found to be irregular, of about the size of an orange, in the position of the cæcum, freely moveable in a horizontal direction, especially towards the middle line, but only to a slight extent in a vertical direction; it did not move with respiration. The right kidney could be palpated above the tumour. Examination of the urine for tubercle bacilli gave negative results. The temperature was subnormal since admission. The pulse was variable and usually over 90; the respirations also were variable and frequently over 30 per minute.

On March 25th the abdomen was opened by an oblique incision over the right iliac region. The great omentum was found to be adherent to the bottom of the right iliac fossa. The adhesions were easily broken down. A band of thickening was found surrounding the ileum at a distance of about one and a half inches from the cæcum, somewhat rough on the surface and with all the appearance of a typical malignant stricture. The cæcum was then exposed and found to be greatly enlarged and very hard; the appendix also was swollen and hard, especially at its base. These appearances are well seen in the accompanying illustration. As the tumour was thought to be malignant the portion of the omentum which had been found adherent to the iliac fossa was removed. The ileum was divided about one and a half inches on the proximal side of the thickening, the proximal end of the gut being closed by a continuous through-and-through silk suture which was then invaginated and buried by a continuous serous silk suture. The distal end was ligatured, the mucous membrane being swabbed with pure carbolic acid, and wrapped in a piece of gauze. The end of the mesentery was then ligatured in sections and divided, the peritoneum on the outer side of the cæcum and ascending colon was divided, and the whole mass was lifted off the posterior abdominal wall and the colon divided between two clamps. A lateral anastomosis was then made between the ileum and the transverse colon by means of a double row of continuous silk sutures. An attempt was then made to close the cut end of the colon in the same manner as the ileum, but as the peritoneal covering was scanty the serous stitch could not be completed and it was thought safer to fix the gut in the upper angle of the wound which was closed by silkworm gut sutures with the exception of the upper inch. The operation lasted for one and three-quarter hours and was well borne by the patient.

Tuberculous ileum, cæcum, and appendix. The thickened band surrounding the ileum and the corresponding stricture are well shown, also the great thickening of the walls of the cæcum and the stricture in the commencement of the ascending colon; observe also the peculiar shape and appearance of the appendix.

For the first few days after the operation some uneasiness was caused by the fact that the patient's respirations and pulse were abnormally rapid, the former varying from 36 to 50 and the latter from 128 to 148 per minute; but the patient slept well and there was no abdominal tenderness or rigidity. The temperature on the night after the operation rose to 101° F., the next night it was 100°, and the following night 99°; after that it did not rise above normal during her stay in hospital. There was occasional vomiting of small quantities of fluid for the first two days after the operation. The patient was given nutrient enemata every four hours. On the second day she was allowed one drachm of panopeptone every hour and was given a simple enema in the evening which had a fairly good result. The next day the patient was given a soap-and-water enema which produced a good motion and on the following day the bowels acted naturally. From this on the patient made an interrupted recovery; the wound healed by first intention except in the upper part, where a small fæcal fistula formed on the sixth day but closed within a fortnight. The nutrient enemata were stopped on the eighth day after the operation, the patient was allowed bread on the thirteenth and meat on the sixteenth day, she was allowed up on the twenty-first, and left hospital on the thirty-fifth day after the operation. At the time of her discharge the bowels were moving regularly every day without the assistance of any medicine and she had put on weight;

the symptoms present in the lumbar region before operation had entirely disappeared.

On opening the intestine after removal it was found that where the ileum was surrounded by the thickened band there was a distinct stricture reducing the lumen of the bowel to a diameter of half an inch; there was, however, no sign of ulceration or presence of tubercles either in the mucosa or on the peritoneum; from this to the cæcum the wall of the gut was slightly thickened. The walls of the cæcum were enormously thickened, the lumen being merely represented by a small channel. The ileo-cæcal valve had entirely disappeared and the opening of the appendix was reduced to a minute hole. At the commencement of the ascending colon about one inch from where the small and large intestine joined there was a second stricture, the lumen being reduced to about one-third of an inch in diameter. The appendix was about one inch in length, conical in shape, and solid. Most of these points can be well seen in the accompanying illustration. Portions were removed from both strictures and one of three or four slightly enlarged glands found in the loose tissue behind the cæcum. These were cut and examined microscopically; they presented the typical appearances of tuberculosis—giant cells, tubercles, and small patches of caseation. Before the microscopical examination the tumour was thought by all who saw it to be a scirrhous carcinoma and even afterwards on examining the tumour again nothing could be seen by the naked eye to suggest the fact that it was of a tuberculous origin.

Bibliography.—Douglas: Surgical Diseases of the Abdomen. Fenwick and Dodwell: THE LANCET, July 16th, 1892, p. 133. Magill: Annals of Surgery, vol. xx., 1894. Senn: Journal of the American Medical Association, May 21st and June 4th, 1898. Conrath: Beiträge zur Klinischen Chirurgie. Tübingen, Band xxi., 1898. Crowder: American Journal of the Medical Sciences, vol. cxix., 1900.

Dublin.

THE RAPID ESTIMATION OF THE AMOUNT OF SUGAR IN URINE.

BY R. T. WILLIAMSON, M.D. LOND., F.R.C.P. LOND.,
ASSISTANT PHYSICIAN, ROYAL INFIRMARY, MANCHESTER, ETC.

FOR most clinical work the fermentation method is quite satisfactory for the estimation of the amount of sugar in diabetic urine, providing certain precautions be taken. But it is necessary to wait for 24 hours before the results can be obtained. Sometimes, however, it is desirable to obtain the results of the quantitative estimation of sugar in a few hours or immediately. In such cases the ordinary method of estimation with Fehling's solution is trustworthy but it is troublesome on account of the considerable amount of time required, especially if many specimens of urine have to be examined. Hence many simpler modifications have been employed. Recently I have devised a slight modification in the performance of Gerrard's method which I have found so useful and rapid that for ordinary clinical work I prefer it to all other methods I have tried. The estimation can be made in a few minutes, only a very small amount of urine is required, and the results are sufficiently accurate for most clinical work. The only apparatus required are a test-tube of ordinary size (diameter about five-eighths of an inch); a small narrow burette tube (diameter about three-eighths of an inch and graduated to indicate one-tenth of a cubic centimetre); and a spirit lamp. At my request Messrs. Burroughs, Wellcome, and Co. have kindly prepared "soloids," each equivalent to one cubic centimetre of Fehling's solution, decolourised whilst boiling with a 5 per cent. solution of potassium cyanide (Gerrard's solution).

The rapidity of the method is due to the use of these soloids and to the performance of the estimation with small quantities of the fluids. The estimation is made in the following manner: A little water is placed in the test-tube (about half a drachm or a little more). In it are dissolved, by heating with a spirit lamp, one of the copper sulphate soloids and then one of the alkaline tartrate soloids which are supplied by Messrs. Burroughs, Wellcome, and Co.; together these two soloids form a solution equivalent to one cubic centimetre of Fehling's solution. (The copper in this solution requires 0·005 gramme of sugar for its complete reduction.) Then one of the potassium copper cyanide soloids (already mentioned) is dissolved by heat in the same fluid. The urine which has been placed in the burette tube is rapidly dropped into the boiling fluid in the test-tube until the blue colour of the solution disappears. The amount of urine used is read off from the graduated burette. This quantity must therefore contain 0·005 gramme of sugar. The percentage of sugar can then be easily calculated. When the amount of sugar present is small the urine may be employed undiluted; when the urine contains much sugar or when greater accuracy is desirable it is best to dilute the urine (1 in 10).

The following are the advantages of this simplified method. 1. The estimation can be made very rapidly; only a few minutes are required. (As in the ordinary method of performing Gerrard's test, the oxide of copper is dissolved by the potassium copper cyanide as soon as it is reduced from the Fehling's solution by the saccharine urine and hence the troublesome waiting for the copper oxide precipitate to subside is avoided.) 2. The method can be employed when only a very small amount of urine is available. 3. The estimation can be made easily when the urine only contains a very small amount of sugar. These specimens are very troublesome when the ordinary method of estimation with Fehling's solution is employed.

The use of the soloids saves the time required for accurately measuring the test reagents. The soloids are dissolved whilst the fluid is being heated. The performance of the test with small quantities of the fluids diminishes the time required for boiling the solution; the use of the narrow burette tube increases the accuracy of the measurement of the amount of urine required in the test and thus compensates to some extent for the loss of delicacy through the use of small quantities of fluids. When greater accuracy is desired, one of the cyanide soloids may be dissolved in water in a second test-tube and this solution may be used as a standard of the exact tint to which the mixed Fehling's solution and double cyanide (in the first tube) should be reduced by the addition of the diabetic urine.

Although there are many other rapid methods of sugar estimation, I have ventured to record the modification just described since I have found it so useful in medical practice.

Manchester.

A CASE OF PULMONARY EMBOLUS WITH SOME PECULIAR FEATURES, OCCURRING SHORTLY AFTER NORMAL LABOUR.

BY R. J. WAUGH, M.R.C.S. ENG., L.R.C.P. LOND.,
ASSISTANT MEDICAL OFFICER, BETHNAL GREEN INFIRMARY.

A WOMAN, aged 25 years, a healthy multipara, pregnant at full term, was admitted to the Bethnal Green Infirmary on Nov. 16th, 1904. The second stage of labour was well advanced at 11 P.M. on the 17th when I was called to see her. On my arrival I found the fœtal head already distending the vulva and a few moments later the child, a full-time, healthy, male infant weighing 8 pounds, was born. I expressed the placenta almost immediately and left the patient quite comfortable at 11.25 P.M., 15 minutes after the completion of the third stage. At 12.30 A.M., an hour later, I received an urgent message asking me to come at once to see the patient as she appeared to be dying. On reaching the ward I found her sitting propped up in bed gasping for breath. Dyspnœa was extreme, the features were pinched, the lips were blue, and the face and hair were bathed in a clammy sweat. The pulse was rapid, compressible, and extremely irregular. On examining the chest I found the cardiac dulness to be extended as much as an inch beyond the right sternal margin; otherwise irregular and tumultuous action was the only abnormal feature. On auscultation of the upper lobe of the left lung no breath sounds were audible but in their place many fine moist râles could be heard, giving one the impression of an intense local œdema. The percussion note over the corresponding area was distinctly impaired. The lower lobe of the left lung seemed to be but little affected, though the breathing was somewhat faint in this region, especially when compared with the right side of the chest, where the breath sounds might be described as almost puerile in character, so much were they increased. From the commencement of the attack (which I was informed occurred quite suddenly, the

patient complaining of great pain above the right breast and difficulty in breathing) a colourless frothy liquid, at times slightly stained with hæmoglobin, had been coughed up in considerable quantities. There was about half a pint in all. Of specific gravity about 1030, it coagulated on boiling, contained no red corpuscles when examined microscopically, but gave the spectroscopic test for oxyhæmoglobin. As the more alarming symptoms seemed to be due to an acute engorgement of the right ventricle a small venesection was performed, about ten ounces of blood being withdrawn, and five minims of solution of strychnine, together with 20 minims of ether purus, were given hypodermically, weak brandy and water being ordered by the mouth, in teaspoonful doses, as the respiratory distress rendered swallowing very difficult.

The patient's condition having undergone a slight improvement I left her about 4 A.M., giving instructions that the hypodermic injections should be continued as directed and that I should be sent for immediately if any change for the worse took place. To my surprise I heard no more of the patient until I made my usual visit to the ward on the following morning at 10 o'clock. She was then resting quietly; all signs of dyspnœa had disappeared and, except for some facial pallor and slight exhaustion, she seemed to be none the worse for her experience of the early hours. On examination of the chest a few moist râles could still be heard over the affected area while all signs of cardiac dilatation had vanished and at 4 o'clock on the same afternoon the chest, being again examined, this time in company with one of my colleagues, was pronounced by him to be normal. From this time onwards the puerperium was uneventful, save for the development of a small, superficial mammary abscess which rapidly yielded to appropriate treatment, and the patient was allowed up on the twenty-first day and discharged herself from the infirmary two days later.

As regards a diagnosis, dyspnœa coming on suddenly after labour in a healthy woman such as this patient, taken together with the physical signs present during the attack, seemed to me to point to an embolus of uterine origin which had been carried away and become arrested in the pulmonary circulation, while the fact of the signs clearing up so rapidly (all physical signs had disappeared 16 hours after onset) makes it probable that the embolus, if such it were, must have been composed of air rather than dislodged blood clot. If, however, this diagnosis be admitted as possibly a correct one it seems difficult to imagine how the air was introduced into the uterus, since no intra-uterine manipulations were made nor was a douche given either before or after labour. The point about which I feel most interest is as to whether a hurried expulsion of the afterbirth, such as was effected in this case, could have given rise to the condition described, air presumably being sucked into the vagina as the uterus was released from the somewhat powerful grasp necessary to expel a not sufficiently separated placenta; and if this be so, why so lengthy an interval as an hour elapsed before the onset of the disquieting symptoms? Should any of your readers feel sufficiently interested I should be grateful for an expression of opinion upon this, to me, somewhat puzzling experience.

Cambridge Heath, N.E.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF FORWARD DISLOCATION OF THE RADIUS AND ULNA WITHOUT FRACTURE OF THE OLECRANON PROCESS OF THE ULNA.

BY F. W. STAUNTON, M.B. DUB.,
HONORARY SURGEON TO WATERFORD COUNTY AND CITY INFIRMARY.

THE patient in this case was a man, aged 45 years, whose description of his accident was to the effect that "while walking quickly downstairs he felt as if he had trod on something slippery; his foot went from under him, he twisted round in order to save himself and fell backwards downstairs, the tip of his left elbow striking the edge of the staircase first." On examination the elbow was seen to be held at an angle of 130°. It could be slightly flexed and extended and permitted a good deal of lateral movement. The head of the radius and the olecranon process of the ulna could be felt lying on the shaft of the humerus about two and a quarter inches above the condyles. It was possible to feel both condyles of the humerus, the olecranon fossa, the coronoid depression, the trochlea, and the capitellum; in fact, the lower end of the humerus could be easily grasped in the hand. There was distinct lengthening of the forearm.

The points of interest in this case were: (1) its rarity; (2) the absence of fracture of the olecranon; and (3) the maintenance of the relationship between the radius and ulna. Attention has been called to this in Treves's "Surgery" by Mr. Marmaduke Sheild who states that "this dislocation is extremely rare," and quotes Canton's case in which the radius maintained its relationship to the ulna. Looking up the literature on the subject I find that there are about 12 recorded cases. Erichsen states that six cases of this dislocation are on record. Rose and Carless state that fracture of the olecranon always occurs in this dislocation. Gould and Warren in their "International Text-book of Surgery" refer to this dislocation as "rare and its occurrence without existing fracture has been doubted; in point of fact the latter complication has been still more rarely recorded." Helferich says: "This is a very rare injury; it was formerly said it never occurred without simultaneous fracture of olecranon. May be produced by a fall or blow on olecranon while arm is in extreme flexion." Hamilton quotes nine cases and states "that it seems to have been in most cases caused by a fall upon elbow while forearm is forcibly flexed." Cheyne and Burghard state that this dislocation "is sometimes met with ..... as result of a severe blow upon back of flexed elbow."

Stimson in his book refers to a case which was under his care in 1895. He says: "The elbow is held at a right angle but can be somewhat flexed and extended; is moveable laterally. The epitrochlea can be plainly felt, also the inner face and edge of trochlea. The overlying flexor muscles of hand having been torn away from humerus, the tip of olecranon is below, and even a little in front of, the trochlea, the inner anterior portion of articular surface of which can also be felt on depressing the skin. The head of radius in front of capitellum; the forearm is markedly abducted. ..... The only other reported case is Wright's. The symptoms were similar."

Waterford.

DISAPPEARANCE OF RODENT ULCER UNDER THE APPLICATION OF THE X RAYS.

BY FREDERICK B. JEFFERISS, F.R.C.S. EDIN., M.R.C.S. ENG., L.R.C.P. LOND.

THE successful treatment of rodent ulcer by the application of the x rays is now well established and many cases are on record where a complete recovery has resulted. The same, however, cannot be said of carcinomata, some cases improving for a time but relapsing again or even getting worse as the treatment is continued.

The patient in the present instance was an elderly woman who suffered from an epithelial growth on the left frontal region. The history was to the effect that about two years before she first came under my notice she observed a small pimple at the site of the growth which she injured by accidently striking it against the mantelpiece causing ulceration. She treated it herself with zinc ointment without any benefit and it steadily grew for the two years. When I first saw her the growth was about as big as a five-shilling piece, rounded in shape, and very much raised, the ulcer on the top of the growth being about half an inch above the level of the surrounding skin, so that the whole growth was crateriform in appearance. It was very vascular, several large veins ramifying on the surface, and bleeding was easily induced on manipulation. There was no pain but the growth was very tender and the whole was soft, including the edges of the ulcer, which although heaped up were not indurated; the mass was freely moveable and none of the neighbouring glands were involved. A diagnosis of rodent ulcer was made but it could not be confirmed as the patient refused to allow a piece to be removed for microscopic examination.

I began the treatment with the x rays on March 5th, 1904, giving two sittings a week of five minutes each. No change

was noticed until after the fifth application, when the surrounding skin, which was not completely covered by the mask of lead-foil I was using as a shield, showed some signs of inflammation. At the next sitting the ulcer had increased in size and after that the elevation of the growth became less marked as the treatment was continued, until after the sixteenth sitting the ulcer was level with the surrounding skin and of about the size of a half crown. As the reaction was marked the treatment was stopped for ten days and the ulcer was dressed with boric ointment. When next seen by me the ulcer was smaller, showing a healthy healing edge, and after four more applications of the rays it had quite healed, just over three months from the first application. At the time of writing, seven months since the ulcer healed, there is no sign of recurrence and no scar is visible.

Chatham.

IODOFORM AND MERCURY IN THE TREATMENT OF TUBERCULOUS PERITONITIS.

By DAVID SANDLER, M.B., CH.B. EDIN.

THE following case of successful treatment of tuberculous peritonitis with iodoform and mercury seems worthy of being recorded.

On May 25th, 1904, I was called to see a female child about six years of age, who was unable to stand and had been bedridden for over seven months. The treatment of several local practitioners as well as the assiduous employment of all sorts of domestic remedies, so much in vogue in this part of the world, seemed to do no good. The parents of the child regarded the case as hopeless and consulted me simply for the sake of novelty as I had newly arrived here. The patient presented a pitiful appearance. She was reduced to a perfect skeleton, her limbs, both upper and lower, being mere bone and skin. Her face was pinched, sallow, old looking and had a remarkably monkey-like expression. Her forehead was covered with wrinkles. Her lips were coated with a foul mass of yellowish-brown sordes. Her head was studded with large boils, some of which were hard and some were fluctuating. Her abdomen presented a wonderful contrast to the extremely emaciated appearance of the trunk and limbs, being very much distended, hard to the touch, and pigmented. Many small nodular masses could be felt through the skin. Several foul bedsores were seen on the buttock. The fæces were liquid and foul smelling. The morning temperature was subnormal, being 96° F. Sometimes slight fever was present. Immediately I had begun treatment the temperature rose on one or two occasions to 102°. There was no difficulty in diagnosing chronic tuberculous peritonitis. I prescribed powders consisting each of half a grain of mercury with chalk and half a grain of iodoform, one powder to be taken in milk three times daily. I also directed equal parts of ointment of mercury and ointment of iodoform to be rubbed, morning and evening, each time for about ten minutes, over the whole abdomen. Under this treatment, which was continued for several months, the child gradually improved. The boils rapidly disappeared. Already in about two weeks there was a very marked subsidence in the distension of the abdomen with a corresponding disappearance of the small nodular masses. When the stools ceased to be liquid and foul smelling I ordered also half a teaspoonful of cod liver oil thrice daily. At present the child is almost perfectly healthy. Her face and body generally present a full, well-nourished appearance. Her gait, however, is somewhat unsteady, due undoubtedly to the fact that she has been confined to bed for a long period and has almost forgotten how to walk.

Constantinople.

MEDICAL MAGISTRATE.—Mr. Charles Augustine Hayman, M.D. St. And., F.R.C.S. Irel., L.R.C.P. Irel., L.D.S. R.C.S. Eng., assistant dental surgeon to the Bristol Royal Infirmary, has been placed on the commission of the peace for the city and county of Bristol.

COST OF SMALL-POX PATIENTS.—At a meeting of the Chard (Somerset) rural district council, held on July 17th, a discussion took place with regard to small-pox and it was decided that should any cases arise in Chard they should be removed to Langport where the authorities would be willing to receive them at seven guineas weekly for each patient.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF PRIMARY CARCINOMA OF THE APPENDIX VERMIFORMIS.

(Under the care of Mr. W. H. BATTLE.)

FOR the notes of the case we are indebted to Mr. F. O. Spensley, dresser.

A schoolgirl, aged 14 years, was transferred to Beatrice ward from the gynæcological ward, where she had been admitted under the care of Dr. W. W. H. Tate, on July 15th, 1904. She was sent to the hospital by Mr. T. F. Okell of Long Ditton. Her father was said to suffer from pulmonary tuberculosis but the rest of the family were healthy. She is stated to have suffered from an attack of pain in the right iliac region with vomiting on four occasions. The first illness began on July 13th, 1903, and she was ill for two months. The second, which was the most severe, was in August, 1903, and she was ill for two weeks. The third attack was in September of the same year and also lasted for two weeks, whilst the fourth attack in July, 1904, only lasted for a few days.

On admission she was a healthy-looking, well-nourished girl, presenting nothing abnormal in her general condition. She complained of no pain or sickness. There were some resistance to pressure and slight fulness in the right iliac region over the appendix, otherwise the abdomen was natural.

On July 15th Mr. Battle removed the appendix. An incision three inches long was made midway between the anterior superior spine and the crest of the ilium. The rectus sheath was then opened, the muscle was separated and drawn inwards, and an incision was made through the posterior layer of the sheath and peritoneum. (The area of operation was shut off from the rest of the peritoneal cavity with strips of sterilised gauze.) On opening the peritoneum a large mass of omentum was exposed, matted and extensively adherent to the bowel. This was turned forwards and the appendix was found; it was then separated, not without difficulty, and removed, the stump being sutured into the wall of the cæcum. The parts exposed during the operation were washed with warm sterilised salt solution and returned to the abdomen. The opening in the structures behind the rectus abdominis was closed with interrupted silk sutures. The muscle was permitted to return to its position; the anterior part of the sheath was then closed with interrupted silk sutures and the skin with a continuous horsehair stitch. No enlarged glands were found. The appendix was twisted on itself and closely bound down, there being considerable fibrinous exudation all round it. Measuring about two inches in length, it was congested and its wall and mucous lining were much thickened. It presented two constrictions after removal, one near the distal extremity which cut off a marble-like portion in which was a collection of thick purulent fluid; the other was about two-thirds of an inch nearer the cæcum; and between them was a rounded nodule of about the size of a small marble which presented a yellowish white appearance on section somewhat the colour of a caseating mass of tubercle but of firm consistence. This caused a block in the lumen of the appendix When examined microscopically in the clinical laboratory a report was returned by Dr. C. F. Selous: "Spheroidal-celled carcinoma not arising from mucosa. Deep extension in muscular wall. ? Secondary to a visceral growth." The wound healed per primam. There was no rise of temperature or local pain. The patient left the hospital on July 28th and has since continued in good health.

Remarks by Mr. BATTLE.—Carcinoma of the appendix is more frequent as a primary disease in females than in males and the most striking thing about these cases is the age at which the disease has been found. Almost all the younger

subjects were women and the youngest, so far as can be ascertained, was a girl 12 years of age, then one of 15, &c. It is not, however, suggested that it is a common complaint—far from it; only about 40 instances have so far been placed on record.

This is a very good instance of the manner in which cases of carcinoma of the appendix come under the notice of the surgeon. A patient is under treatment for attacks of appendicitis, and after operation some unusual change is observed in the appearance of the excised part which causes a micro-copical examination to be made and a report of carcinoma is returned. Or the carcinoma is found at a post-mortem examination, when its presence had been quite unsuspected. The effect is very similar on the distal part of the appendix to that of a stricture of the lumen, and an attack of what appears to be of an ordinary inflammatory nature first draws attention to the fact that the appendix is diseased. This complication of the disease probably explains the fact that carcinoma in this part of the body seldom gives rise to secondary deposits; the patient dies, or the growth sloughs, or the appendix is removed. In a case described by Lejars in 1896 the growth rapidly recurred and disseminated, although at the time of operation the appendix appeared normal before it was cut open.

VICTORIA HOSPITAL, KINGSTON-ON-THAMES.

A CASE OF STRANGULATED CONGENITAL HERNIA CONTAINING A MECKEL'S DIVERTICULUM; OPERATION; RECOVERY.

(Under the care of Mr. J. E. S. BARNETT.)

THE patient, a man, aged 23 years, was admitted into the Kingston Victoria Hospital on the night of July 7th last. He was ruptured two years ago while lifting a gun-carriage when a soldier in India. He went to Bangalore Hospital and was invalided out of the service. This hernia was probably an epiplocele and his recent acute trouble arose from the sudden descent of an enterocele. He had been rowing the same day on the river without a truss. He vomited, was pale, sweating, moaning with pain, and begged to be relieved. Taxis had been tried outside the hospital by a medical man. The tumour extended from the left inguinal internal ring to the scrotum; it was narrow above, broad below, and very tense. Transfixion and subsequent dissection revealed a somewhat thickened sac, on opening which no fluid escaped but a considerable amount of omentum. The loop of gut was congested and tightly distended. A Meckel's diverticulum protruded from the posterior portion of the loop; this was not noticed till reduction was being effected. The canal and the processus vaginalis were very narrow and the neck of the sac barely admitted the tip of the little finger. It was necessary to snick this neck three times before reduction was possible. The vas deferens was so adherent to the back of the sac that no attempt was made to separate it completely. The upper end of the divided neck was twisted and ligatured high up and a ligature was tied round the lower end, the vas deferens being isolated. Sutures were passed between the conjoined tendon and Poupart's ligament. On July 10th the patient complained of slight pain in the wound and of "starvation" diet. There were no serious symptoms. At the end of a week skin stitches were removed and the wound had healed by first intention. His good condition must be attributed to the short period allowed to elapse between the strangulation (7 P.M.) and the operation (11 P.M.) and to the fact that no undue efforts at taxis were perpetrated.

GRIMSBY AND DISTRICT HOSPITAL.

A CASE OF ACUTE DILATATION OF THE STOMACH AFTER AN OPERATION ON THE KIDNEY.

(Under the care of Mr. C. B. TURNER.)

FOR the notes of the case we are indebted to Mr. S. B. Gadgil, house surgeon.

The patient, a married woman, aged 36 years, was admitted into the Grimsby and District Hospital on Jan. 14th, 1905, at 10 P.M., with anuria of three days' duration, sickness, and a temperature of 100° F. She had a history of rigors when at home. On examination a large tumour was felt in the right lumbar region of about the size of a fist, which was fluctuating and tender. Mr. C. B. Turner, who had removed her left kidney a couple of years back, having examined the case, came to the conclusion that she was suffering from pyonephrosis and decided to operate immediately.

Taking into consideration that the patient had only one kidney Mr. Turner simply drained the tumour through the lumbar incision, when a large amount of urine with pus came out. No stone was felt and on account of the nature of the case no more exploration was made. A drainage tube was put in and the patient was sent back to bed. She felt better on the next day. The temperature was 98·4° 12 hours after the operation but the vomiting did not stop. She also passed urine per urethram. After another 12 hours the temperature fell to 97° and the pulse remained very feeble and slow. Stimulants were tried but nothing was done in the way of washing out the stomach for the vomiting which kept on as before. The vomit was reddish, dark, and brown in colour and very profuse in quantity. On the next morning—i.e., 36 hours after the operation—she lost more ground. Her temperature was 96° and she died about eight hours later.

Necropsy.—At the post-mortem examination the kidney had its capsule very adherent, due to inflammation (past), and it contained two stones, one in the pelvis of about the size of a marble and the other in the tissue, which was smaller. There were also two or three suppurating foci in the tissue of the kidney. The pelvis of the kidney was moderately dilated. But the remarkable point was the size of the stomach. The lower curvature of the stomach was very much below the level of the umbilicus and hardly any part of the intestinal canal could be seen. The stomach wall was attenuated, so that when the abdomen was opened and nicked a couple of pints of dirty fluid simply welled out and after tying the opening the stomach was found to be still full of fluid.

Remarks by Mr. GADGIL.—Acute dilatation of the stomach being a rare complication after operations on the kidney I thought it well to record the above case.

The persistent vomiting and the absence of desire for food should have led me to do something for the stomach in the way of lavage but whether it would have been of any use I cannot say. Perhaps someone who has met with a similar case may be able to tell his experience.

That the case was one of acute dilatation is inferred from the fact that the woman never complained of any gastric troubles before and that the anuria was not due to pressure of the stomach contents on the ureter is shown by the fact that she passed urine per urethram after nephrotomy. During this operation I believe the pressure upon the ureters was relieved. There was a stone found in the pelvis of the kidney which not being taken away at the operation could not have been the cause of anuria. The stomach was left undisturbed throughout the whole course of the complaint.

I have to thank Mr. Turner for allowing me to report the case.

Reviews and Notices of Books.

Squint: its Causes, Pathology, and Treatment. By CLAUD WORTH, F.R.C.S Eng. Second edition. London: John Bale, Sons, and Danielsson, Limited. 1905. 8vo, pp. 231. Price 6*s*.

THIS treatise belongs to a class of works which are happily becoming more and more numerous and in which a surgeon whose opportunities of observation are large selects a particular form of disease, studies its varieties, obtains accurate statistics of age and sex, endeavours to ascertain its pathology, and notes the effects of different methods of treatment. It is only in this way that real advances can be made.

The various opinions that have been held in regard to the causation of squint form an edifying commentary on the effects of more exact knowledge upon our theories of the nature of disease. If even a well educated medical man had been asked so late as at the middle of the last century to what cause he would attribute the occurrence of squint he would have replied that it was due to weak-sightedness, imperfect vision from short-sightedness, or some

congenital defect of the retina causing the squinting eye to be very considerably inferior in power of sensation to the other. It was known, even at that time, that the muscles presented no appreciable change and it was considered that the defect was occasioned either by some opacity of the cornea or by some lesion of the retina. Additional and subsidiary causes were found in hereditary predisposition, in the child being allowed to hold his book too close to the eyes, in imitation, and in the habit of looking at the point of the nose, and it was noticed that it frequently followed irritation of the nerves or the brain by worms or teething, or inflammation of the brain itself. After the appearance of Donders's well-known treatise, in which he demonstrated the connexion of convergence with accommodation, it was generally believed that hypermetropia was the fundamental cause of the affection. But it was soon ascertained that high degrees of hypermetropia are by no means constantly associated with squint and that although an important factor in the maintenance of that affection when once established, it could not be accepted as the exclusive cause. Mr. Worth now comes forward with another theory which regards convergent squint as the result of an imperfect development of the fusion faculty. This faculty he believes to be acquired as a rule in early infancy, reaching its full development about the sixth year. This view has an important bearing upon the treatment which he adopts. That treatment consists in training the fusion faculty by means of an instrument named the amblyscope, of which he gives a drawing and description. Fusion training, Mr. Worth considers, to be of any material benefit must be undertaken at a very early period. Before the age of five years it may be in suitable cases quickly and easily accomplished. After the age of six, or at the latest seven, years the results are not worth the time and the trouble which they cost. The deviating eye, it is hardly necessary to say, must not be too blind. Divergent squint, Mr. Worth states, presents two distinct varieties, the myopic and the neuropathic. In the myopic form the fusion sense is usually well developed and the squint develops gradually. It may often be cured by the use of appropriate glasses. The neuropathic form is less amenable to treatment by means of glasses and an operation effecting advancement of the tendon of the internal rectus is frequently necessary to remedy the defect. The author cites a number of cases that have been under his care of the ordinary forms of squint as well as others which illustrate the rarer forms of heterophoria that are highly instructive and we commend the book cordially to the attention of every ophthalmic surgeon.

An Atlas of Dermatology, showing the Appearances, Clinical and Microscopical, Normal and Abnormal, of Conditions of the Skin. By MORGAN DOCKRELL, M.A., M.D. Dub., Senior Physician and Chesterfield Lecturer on Dermatology to St. John's Hospital for Diseases of the Skin. With 60 coloured plates. London: Longmans, Green, and Co. 1905. Price 50*s.* net.

THE scientific study of dermatology has been delayed until comparatively recent years owing to the lack of knowledge of the morbid histology of cutaneous diseases. The microscopic pathology of the internal organs had attained a high degree of perfection before the study of the morbid histology of the skin had even been commenced. Two reasons are given in explanation of this somewhat remarkable fact. Firstly, the symptoms of skin diseases, unlike those of internal diseases, are visible to the eye of the physician and seem at first to be so definite and distinct that the need of histological knowledge is not urgently felt; and secondly, cutaneous diseases being rarely fatal sections from the cadaver are not frequently obtainable. As the clinical study of cutaneous diseases advanced descriptions of naked-eye observations made by various competent dermatologists became so involved an the nomenclature and classification in consequence so vast and intricate that the necessity of histological investigation became increasingly evident. Not until biopsy—i.e., sections of skin for microscopic examination taken from the living subject—was introduced and welcomed as a harmless and almost painless operation did the study of cutaneous diseases begin to make scientific progress in keeping with the advance in other departments of medicine and surgery in the latter part of the nineteenth century. The practical use of this recent development comes into play in the diagnosis and consequently affects the treatment of diseases which may baffle the skill of the most experienced with naked-eye examination alone. Thus, a lupus erythematosus is readily distinguished under the microscope from a lupus vulgaris, yet the very names of these diseases betray their frequent clinical similarity.

Many atlases have been published showing the clinical aspects of cutaneous diseases, and several excellent books, notably the monumental work of P. G. Unna, have been written on the histo-pathology of the skin. So far as we are aware the atlas before us is the first to attempt to combine the clinical and the histological appearances of cases of disease of the skin met with in everyday practice. The International Atlas of Rare Skin Diseases (conducted by Unna, Morris, Duhring, Leloir, and Besnier), which first appeared in 1889, contained in most cases illustrations of the microscopic sections as well as of the clinical appearance of the diseases dealt with, but, as the title informs us, that atlas was concerned only with a few rare diseases. We therefore welcome an atlas which supplies a distinct want at the present day and congratulate Dr. Dockrell on producing one at once so accurate and so artistic. The book is portable, handsomely printed, and contains two additional illustrations of the normal skin, which can be removed for purposes of reference or comparison.

The microscopic plates, with the exception mentioned below, call for high praise. Dr. Dockrell is fortunate to have in Mr. Colhoun a histologist who has reproduced with such careful accuracy the minute details that make up a faithful picture of a microscopic specimen. To understand a section prepared for examination under the microscope it is all important to recognise the varieties of cells met with in the tissue examined—leucocytes and connective tissue, epithelial, mast and plasma cells. With this object Dr. Dockrell has devoted Plate IV. to the representation of cells. The degenerate "balloon cell" which is met with chiefly in herpes zoster is clearly depicted in Plate IV. It is a matter for regret that on Plate XLIII., which deals with herpes zoster, the reader is not referred to Plate IV., because of the two plates the latter has much the better picture of a "balloon cell." The various fungi of the hair and the skin are illustrated in this atlas and we are disappointed to find that these are somewhat blurred in outline; the spores and mycelial segments of the ringworm fungi do not show the sharp definition seen in a stained microscopic preparation, nor are the differential points of the small and large spored ringworm fungus brought out as distinctly as we have seen in many black-and-white drawings in ordinary text-books.

The illustrations of the clinical appearances of skin diseases are highly to be commended, but owing to the method of colour reproduction many of the plates fail to give a lifelike outline and colour. Thus, a greenish-yellow hue predominates in Plate IX. (seborrhœic dermatitis), while the letterpress draws attention to the brick-red colour of the lesions. Again, in Plate VI. (vesicular eczema) the vesicles would scarcely be recognised to be such. These faults, it is true, may be found in all atlases and are not due to an error on the part of the artist. While the majority of the plates in this

atlas reach a high level, yet some of the plates fall short of the life-like representation obtained by the four-colour process, known as citrochromy, in Professor Jacobi's portfolio of dermochromes, with which, no doubt, most of our readers are familiar. The only illustration in regard to which we consider that the artist is open to adverse criticism is that of small-pox. The size of this plate is inadequate; the lesions in consequence are so crowded and each is so minute that it is impossible to distinguish the umbilication referred to in the letterpress. The lesions of varicella might also with advantage be enlarged. We mention these few drawbacks because they stand out in an otherwise excellent atlas.

With regard to the letterpress, the author admits that this is somewhat brief but this is certainly an error on the right side. Dr. Dockrell uses few words but these are always to the point. His lucid and convincing style is admirably seen in his differentiation of lichen acuminatus and pityriasis rubra pilaris; the accompanying plates (XII. and XIII.) bear out his contention that in pityriasis rubra pilaris the hair follicle is involved from the first and that the infiltration is greater than in lichen acuminatus, while the epithelium does not undergo the hyaline change met with in lichen.

This atlas will be of use to the practitioner or senior student who has not time or opportunity to undertake courses of instruction in the clinical and microscopic study of dermatology in a hospital or laboratory; it will also form a valuable aid to those more fortunately circumstanced who are enabled to devote the necessary time to the practical study of the subject.

LIBRARY TABLE.

Paludisme et Trypanosomiase. Par A. LAVERAN, Membre de l'Institut et de l'Académie de Médecine. Paris: J. B. Baillière et Fils. 1905. Price 2 fr. 50. Pp. 124.—In this small work we find a most complete *résumé* of the actual state of our knowledge of these two maladies. The section on Malaria, constituting the greater portion of the work, is just what would be expected from its author who is so well known in connexion with this subject. M. Laveran commences by detailing the geographical regions affected by the disease; he then narrates the general conditions favouring its outburst, such as those connected with season, humidity, altitude, and so on. The question of congenital paludism is answered by a possible affirmative. Then the history of the provocative agent is entered upon and the subject is traced from the last century up to the present time. The author, as is well known, in 1880 first described the hæmamœba malariæ and in 1884, in his treatise on "Marsh Fever," advanced the opinion that the parasite had a stage of its being outside the human body and probably in the mosquito. This was ultimately proved to be the case by the researches of Ross, supplemented by those of Grassi, Bignami, Bastianelli, and Manson. The parasite is well described in its different stages, with the manner of its evolution in the body of the mosquito. Mention is made of the experimental proof by T. Manson who contracted tertian ague from an infected mosquito's bite sent from Italy after biting there a patient suffering from that disease. With respect to the question whether there are several species of the hæmatozoon, M. Laveran states that he does not admit this to be the case. The method of the examination of the blood is well described. The author deals with the period of incubation, which he holds to be from six to eight days at a minimum. The clinical forms of the disease are described—the intermittent, the continued, the pernicious, the larval, and finally the cachexial. The description of the pernicious class is particularly lucid. We then come to the various complications that may be met with, namely, those of the spleen, liver, kidneys, lungs, heart, glands, nervous system, bones, and affections of the organs of vision. The relationships of dysentery and enteric fever are discussed, as are also those of tuberculosis, diabetes, scurvy, and small-pox with malaria. After a section on the post-mortem appearances we come to the question of diagnosis and here the importance of an acquaintance with the microscopical appearance of the hæmatozoon is insisted on. The various points in the differential diagnosis are explicitly detailed. A few words on prognosis follow and the section concludes with the subject of treatment. As regards quinine, it is well stated that although it may be better to give it during the apyrexial periods yet we cannot wait to do this in the grave forms of the fever. With respect to prophylaxis the methods are the destruction of the mosquitoes, the protection against their bites, the treatment of malarial patients, and the rendering individuals immune to the disease. The concluding part of the work deals with Human Trypanosomiasis and Sleeping Sickness. The medical history of this disease is first given and the various theories formerly in vogue are described, and then are detailed the steps during which the trypanosoma was finally adjudged to be the cause of the disease. The geographical distribution is shown, the predisposing causes of the malady connected with sex, age, race, and so on, are mentioned, and then we come to the description of the disease in its first and second periods. The pathological anatomy, the description of the parasite, its dissemination by the glossina palpalis, the diagnosis of the disease, and its prognosis and its treatment successively follow. With respect to the last, iron, quinine, and arsenious acid are recommended. As regards serotherapy no definite opinion is expressed as it is still under discussion.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. New Series, No. 14: On a Parasite found in the White Corpuscles of the Blood in Dogs, by Captain S. P. JAMES, M.B. Lond., I.M.S. Calcutta: Office of the Superintendent of Government of India Printing, India. Pp. 12. Price 10 annas or 1s.—The author records in this memoir some observations that he has made on a leucocytic parasite which is not uncommon in the peripheral blood of dogs in Assam. The observations are extremely interesting as there is no previous record in literature of the discovery of parasites of the white blood corpuscles of mammals. Captain James first refers briefly to the work of Danilewsky, Sacharoff, Ziemann and others regarding the leucocytic parasites found in the screech owl, crows, rooks, and magpies, and concisely summarises the researches of Schaudinn on these micro-organisms, according to whom the so-called leucocytozoa of the latter are the resting asexual stages of his trypanosome like parasite, the nucleated mass in which those observers thought the parasite was contained being in Schaudinn's opinion neither a leucocyte nor a red blood corpuscle but an erythroblast to which the parasite has attached itself, and which, with the exception of the nucleus, it absorbs into its own substance. With regard to the parasite which is the subject of this memoir, in June, 1904, the author relates that his attention was directed to a peculiar body in the leucocytes of the blood of a dog by Dr. C. A. Bentley of Assam and in subsequent examinations it was found by the author in the peripheral blood of six out of 45 dogs, either alone or with other parasites. In number the bodies varied a good deal, from one parasite in every 11 polymorphonuclear cells to one in every 64. Especially noted was the presence of nucleated red blood cells in considerable numbers. The blood films were examined, fixed in alcohol, and coloured by Romanowsky's method. The parasites were found to be contained almost invariably in polymorphonuclear leucocytes and it was necessary to stain deeply the films in

order to bring out their structure distinctly. They were found to consist of two parts—(1) a definite oblong, almost quadrilateral cytocyst, with (2) a parasite inclosed within this cytocyst. The facts relating to the position of the parasite in the leucocytes and its effect upon them are then narrated. Captain James believes that two forms are always present in the peripheral blood of infected dogs. He thinks that the parasite represents a hitherto entirely unknown form of mammalian blood infection, inasmuch as it is parasitic entirely upon the leucocytes, and suggests for it the name of "leucocytozoon canis." A clear plate accompanies this interesting memoir.

"Verb. Sap." on Going to West Africa, to Northern and Southern Nigeria, and to the Coasts. By ALAN FIELD, F.R.G.S. London: John Bale, Sons, and Danielsson, Limited. Pp. 166. Price 2*s.* 6*d.* net.—This little work constitutes an excellent guide on all matters appertaining to the countries named in the title. It opens with a preliminary note on the outfit that an official should provide himself with and we are glad to see that the fact is emphasised that woollen vests must be worn under the body linen in order to obviate "fever." The expenses of a good outfit are put down as £100. A descriptive article on the voyage from Liverpool to Lokoja follows, after which there are eminently practical chapters on the Climate and Health and the Mode of Life in the above regions. Here the reader will find all the essential points for preservation of the health. The precautions to be taken with regard to malaria are excellent; especially valuable are those having reference to mosquitoes. Here we note with pleasure that the mosquito nets are directed to be tucked under the mattress and hung inside the rods or poles and not outside. The remarks regarding sunstroke are equally valuable; stress is laid on the fact that an attack can be caused through the eyes. There is, however, no mention of the advisability of lining the helmet with red cloth, which experience in India has shown to be very efficacious. The book also contains notes on sport, languages, and so on, and, in fact, everything concerning which a newcomer would require information.

JOURNALS AND MAGAZINES.

The Practitioner.—In addition to cases of particular interest narrated by Sir Dyce Duckworth and Mr. A. W. Mayo Robson the July issue of the *Practitioner* has an attractive little series of articles under the heading, The Effect of Tobacco in Health and Disease. Sir Lauder Brunton deals with the heart and the circulation and he consoles the smoker by the reflection that "smoking in moderation does not seem to be injurious to grown-up people." Dr. Norman Dalton, in connexion with the gastro-intestinal tract and tobacco, agrees with Dr. T. Clifford Allbutt that in certain persons a hyperchlorhydria is produced with an intense heartburn which is relieved by food. Dr. James Taylor discusses the effects of tobacco on the nervous system and Mr. W. G. Spencer those upon the mouth and the tongue.

Journal of Anatomy and Physiology. Conducted by Sir WILLIAM TURNER, K.C.B., F.R.S.; D. J. CUNNINGHAM, M.D., F.R.S.; G. S. HUNTINGTON, M.D.; A. MACALISTER, F.R.S.; and J. M'KENDRICK, F.R.S. Vol. XXXIX., Part IV. July, 1905. London: Charles Griffin and Co. Pp. 145. Annual subscription, 21*s.*—The articles contained in this number are as follows: 1. On the Origin of Vertebrates, deduced from the study of Ammocœtes, by Walter H. Gaskell, F.R.S., Part 12. 2. On Pressure Epiphyses, by F. G. Parsons, F.R.C.S. 3. On Imbrication of the Papillary Ridges in Man, by Walter Kidd. 4. Skulls from the Round Barrows of East Yorkshire, by William Wright, F.R.C.S., with six plates. The skulls are described in a very technical manner. For example, Skull 33 is that of a female; it is brachycephalic, hypsicephalic, chamæoprosopic, orthognathous, and mesorhine, besides presenting other characteristic features. Skull 46 is a male skull. It is mesaticephalic, orthocephalic, mesognathous, leptoprosopic, and mesorhine. The plates which accompany the article are from excellent photographs. 5. The Anatomy of a Sirenomelian Monster, by Gillman Moorhead, M.D. 6. Cranio-cerebral Topography, by G. J. Jenkins, M.D. 7. The Development of the Retina in Amphibia: an Embryological and Cytological Study, by John Cameron, M.D. Edin., with two plates, Part 3. The author recognises four groups of structures in the inner wall of the retinal cup—namely, germinal nuclei, neuroblast nuclei, spongioblasts, and myelospongium. The processes of the cells in the ganglionic and internal nuclear layers emerge from the nuclei and not from any surrounding cytoplasm and the first rudiments of the rods and cones are partly in the form of protrusions of nascent achromatin from the external nuclear layers. This substance attacks the yelk granules and transforms them into clear achromatic "yelk globules." The rod and cone rudiments ingest the pigment of the pigment cells and metabolise it into a substance which stains very intensely with iron alum-hæmatoxylin and is apparently rhodopsin. The so called "oil globule" of the amphibian cone is simply the remains of the original yelk globule. 8. A note on the Variations of the Tibia and Astragalus, by D. Macrae Aitken, F.R.C.S. Edin. 9. On the Limits of the Sensibility to Odours and of the Methods of detecting Emanations, by M. Berthelot. 10. A Curious Abnormality of the Renal Arteries, by Charles R. Whittaker, F.R.C.S. 11. Abstract of a paper on Ossification of the Lower Jaws of Man, by Edward Fawcett, M.B. Edin. This part of the journal also contains the Fifteenth Report on Recent Teratological Literature, by Bertram C. A. Windle, M.D., F.R.S., and the index of the thirty-ninth volume of the journal.

Transactions of the Bombay Medical and Physical Society. Vol. IX., No. 2. April, 1905. Bombay: Printed at the Times Press. 1905. Pp. 23 and six plates.—This issue contains the report of a clinical meeting held in the University Library on April 17th. Among the papers read were two on cases of Leishman-Donovan Disease by Major L. F. Childe, I.M.S., and by Major C. H. L. Meyer, I.M.S., and a most interesting one from the F. D. Petit Laboratory, Bombay, by Dr. R. Row, on Obscure Irregular Continued Fevers of the Typhoid Group and their probable relation with different species of bacilli of the typhocoli race, as seen from the specific bacteriolytic value of blood serums of such cases on various members of the typho-coli group of microbes. This paper is illustrated with excellent plates. The author states that his study of fevers of a continuous type familiar in Bombay—fevers characterised by their atypical and irregular course, by pronounced abdominal and later by typhoid symptoms, with the blood sterile and free from malarial, relapsing, or other parasites—leads him to concur with the views of Major D. B. Spencer, I.M.S. (*Indian Medical Gazette* April, 1900), that apart from the genuine enteric fever (produced by Eberth's bacillus) met with in India, practitioners have often to deal with a group of fevers which though generally styled "typhoid," are in reality intestinal infection produced, as he believes, primarily by a single type of bacillus or a mixture of enteric bacilli (distinct from, although closely allied to, Eberth's bacillus typhosus) setting up a simple or a complex reaction on the part of the patient and in some cases a complex phenomenon resulting from secondary infections superimposed in the course of reaction set up by the primary cause. Dr. Row says that Major Spencer's observations from a clinical point of view are in harmony with his own and that they strongly support the inferences enumerated in this paper which are drawn from bacteriological evidence.

New Inventions.

A NEW CHLOROFORM AND ETHER REGULATING INHALER.

THE aim of the anæsthetist when administering chloroform should be to give a constant minimal dose and to maintain an unvarying depth of anæsthesia, but by the rough-and-ready method with mask and drop bottle it is almost impossible to attain this ideal except at the hands of experts, and even then only approximately. By the old methods the dosage is necessarily far from accurate and is therefore unsatisfactory; it is, moreover, on account of this inaccuracy, this varying dose of chloroform, and varying depth of anæsthesia that dangers during narcosis from chloroform usually arise. Most anæsthetists therefore welcomed the advent of the Vernon-Harcourt regulator and it was doubtless a revelation to many of us that a very large number of patients can be kept sufficiently anæsthetised with fractions of 1 per cent. of chloroform vapour in the inspired air. The apparatus is, however, very cumbersome and inconvenient and in my hands it is incapable in many cases—for instance, extensive abdominal operations in certain types of patient—of giving a sufficient dose of chloroform for all contingencies and to suit all surgeons. It has, moreover, certain other inherent disadvantages, such as the restriction of its air-ways by several right-angle bends. For these reasons it has, in spite of its virtues, been discarded by many. I have therefore devised, and Messrs. Krohne and Sesemann have very carefully made after many experiments, the apparatus illustrated below, which enables the anæsthetist to attain the ideal I have predicated and which is without any of the disadvantages of the Vernon-Harcourt apparatus. The two indispensable points about any chloroform inhaling apparatus are that it should be capable of giving a sufficient dose to any kind of case under any ordinary surgical conditions and that it should offer no obstruction to the patient's respiration, which is easily depressed by chloroform. In this apparatus the air-ways are made five-eighths of an inch in diameter, so that there is absolutely no sense of oppression in breathing through them. The apparatus is capable of giving all percentages from zero up to an approximate maximum of 4·5 per cent. I have made no attempt to limit the dose to a so-called "safe" percentage, as I think it is a wrong principle to put an apparatus for giving chloroform into the hands of inexperienced persons and lull their legitimate fears by telling them that it is "safe." Chloroform can never be quite safe and only harm can result by trying to make people think otherwise. It is a mistake to minimise the necessity for the very closest attention on the part of an administrator and to take away the necessity for his judgment and initiative. In the inhaler now to be described an ample percentage of chloroform can, if desired, be obtained for all conditions, and this is particularly useful in those cases where it is very difficult to fit the face-piece with perfect accuracy; in such instances a little admixture of air round the face piece can be compensated for by increasing the percentage in the chloroform delivery.

The apparatus consists of a graduated glass reservoir (A) four inches in diameter by three inches deep. The reservoir is made of this large sectional area to enable ether to be quickly evaporated, since when the apparatus is used as an ether inhaler it is necessary that the inspired air shall pass in close contact over a large area of ether in order that it shall take up sufficient ether vapour. The reservoir is fitted, by means of a bayonet catch, with a metal lid; this lid is perforated by two openings, the air inlet at B and the outlet at E, for the mixture of air and chloroform vapour: this latter opening is closed with a balanced valve. Both openings are five-eighths of an inch in diameter. B is a slotted metal collar around the air inlet which takes the "increase tube" C; the variations in the position of this tube alter the strength of chloroform vapour in the inspired air, since by its means at each inspiration a column of air is made to impinge more or less directly and forcibly upon the surface of the anæsthetic fluid. Thus when it is at its highest point and with one ounce of chloroform in the reservoir the volume of chloroform vapour in the inspired air is 3 per cent. to 2½ per cent. depending upon the frequency of the respiration and the temperature of the chloroform; when at its lowest point the volume rises to 3½ to 4 per cent. depending upon the same conditions, and when the "increase tube" is removed the volume is only 0·75 per cent., which may be further reduced at will by revolving the air inlet collar (G) to admit more air and thus dilute the chloroform vapour. This dilution can be made irrespectively of the position of the "increase tube" if this plan of reducing the dose of chloroform be preferred. The "increase tube" C is fitted with a metal grooved ring (c) to which a petticoat of gauze may be attached in such a way that when it is desired to give ether and when the tube is in place the end of the gauze dips into the ether, acting like a wick and thus increasing the area of evaporation. The orifice and valve (E) are inclosed in a glass valve observation chamber, to the lid of which is attached by a bayonet catch a piece of flexible aluminium tubing 18 inches in length (F); this connects the reservoir with the stopcock (G). The inspiratory valve E is so delicately balanced that the least lowering of pressure in the tube and valve chamber immediately causes the valve to rise and thus there is no sense of oppression in breathing through it. The face-piece is fixed to the stopcock (G), which is of standard size, so that any ordinary face-piece of Clover's inhaler or gas apparatus will fit it. It has an opening to admit air which is opposite the face-piece and when fully open is wide enough to take the whole of the respiratory stream, no air then passing through the apparatus over the surface of the chloroform; this orifice may be closed at will by a revolving collar (g) which is seen in the figure half across the opening. This

collar carries, by means of another collar plugged upon it, the expiratory valve (H) which is guarded by a cross of stout wire. By means of its collar, which is made to rotate, the valve (H) may always be kept dependent in any ordinary position of the stopcock, so that it completely closes the expiratory orifice and does not tend to fall away from it. To the opposite end of the stopcock the flexible aluminium tube is fixed. All parts of the apparatus are detachable and can be easily removed for cleansing or repair. The reservoir is held in a convenient position close to the patient's head, where all its parts will be well in view and where it is out of the way of the surgeon or his assistants by means of the stand (I). This consists of a stout wire cage which closely fits round the reservoir and is fixed to a flat telescoping base. This base is made in two parts which may be pushed one upon the other until the length is reduced to ten inches, so that it can be carried easily in the anæsthetist's bag, or when in use it may be extended to 18 inches. By pushing the base of the stand under that part of the mattress on which the patient's shoulders rest on the bed or operating table the whole apparatus is kept perfectly rigid. If preferred the stand may instead be placed upon a table beside the patient, the length of the base when fully extended insuring sufficient immobility without the additional weight of the patient resting upon it. Since the reservoir is so close to the patient's head only a short length of tube is required and thus the respiration is not impeded; moreover, the air-ways are not encroached upon by angular bends. It will be seen that the apparatus is extremely simple, handy, and portable, and that there is nothing to get out of order.

The best way to use the inhaler is as follows. Half an ounce or more of chloroform is put into the reservoir—the quantity depending upon the probable duration of the operation—the "increase tube" is fixed at its highest point, the air inlet collar is revolved so wide that only the faintest taste of chloroform is perceptible when a breath is taken through the apparatus, the inhaler is placed in its stand, and the base

of the stand is pushed under the patient in a convenient position. After applying the face-piece the air opening is closed very gradually by rotating the collar which covers it, thus gradually making more and more of the inspired air pass over the surface of the chloroform as less and less passes through the air inlet in the stopcock; in this way the percentage of chloroform in the inspired air is slowly increased. Experience will soon teach how rapidly this gradual increase of dose may be effected, but six minutes will usually be sufficient in which to induce anæsthesia. If the percentage of chloroform be not too quickly increased patients will, as a rule, quietly pass into the anæsthetic sleep without a struggle or sign of discomfort. Should, however, the subject be alcoholic or inclined to struggle, in spite of a very gradual administration, the "increase tube" may be placed at its lowest point and the percentage of chloroform thus considerably increased. After full anæsthesia has been established the patient will need very much less chloroform to maintain it, only sufficient, in fact, to make up for that which is eliminated at each breath. The percentage therefore should be reduced and kept at as low a point as is consistent with the requirements of the surgeon. When once the minimum point has been found nothing more is required than to keep the face-piece closely applied; the patient will then remain in an unvarying depth of anæsthesia because he will be inhaling a practically unvarying dose. In course of time, however, the chloroform in the reservoir will become cooler and other things being equal the percentage of chloroform in the inspired air will, from diminished evaporation, slightly fall; but since as the operation progresses the patient needs less chloroform this automatic diminution in the dose is an advantage. During the administration the anæsthetist must, of course, watch the condition of the patient closely and reduce or increase the amount of chloroform as may be necessary. Generally speaking, all he has to do is to keep the face-piece applied, but he must remember that chloroform can never be an absolutely safe anæsthetic and that its administration involves the gravest responsibility and risk, that in the administration of an anæsthetic more is involved than the mere exhibition of a certain dose of the anæsthetic drug, and that unless he devotes his closest attention to the matter in hand he courts disaster. With this apparatus he is enabled to administer an exact and constant dose in the simplest manner and provided he keeps the air-way free and works with as small a dose as possible an accident is a remote contingency.

In the event of the patient showing symptoms of shock in the course of a long or extensive operation ether may be added to the chloroform by pouring it down the "increase tube"; or if it be desired to change to ether entirely the remaining chloroform may be poured out of the reservoir and ether substituted, after placing the ring carrying the gauze petticoat (c) upon the "increase tube" inside the reservoir. It is not recommended to induce anæsthesia with ether in this way, the better plan being to accomplish this with ethyl chloride or gas in another inhaler and then to change to ether in the regulator. In giving chloroform by this means the consumption is not more than one-third of that necessary by means of a mask and drop-bottle; if, however, ether be given the consumption is greater than when a closed inhaler is used, but the regulator possesses this obvious advantage that there is no re-breathing in and out of a stuffy bag, a process which is unhygienic in the highest degree. The patient instead takes in fresh air laden with ether vapour with each breath and in consequence of the freedom from asphyxia there is but little secretion, no sweating and therefore less risk of chill, no cyanosis, and the respiration is less forcible. The after-effects are naturally less. I have used the inhaler constantly both at the London Hospital and in private practice since last autumn and have experienced no trouble with it, and by the kindness of Mr. C. Carter Braine and Dr. J. Blumfeld I have been enabled to demonstrate its use twice at the Charing Cross Hospital in serious abdominal operations on patients weighing over 16 stones—one in the Trendelenburg position for over an hour—and once at St. George's Hospital for an abdominal operation. In each instance the administration was conducted to the entire satisfaction of the surgeons and the anæsthetists on duty at the time. The apparatus is admirable for teaching purposes since the effects of definite percentages of chloroform can be easily demonstrated. The comfort of administration by its means and the freedom from anxiety can only be fully appreciated by actual trial of the instrument. I believe its general use would materially lessen the mortality from chloroform. The percentages were estimated by Mr. P. Richards, lecturer on chemistry at the Charing Cross Hospital Medical School, for whose kind help I am most grateful.

HARVEY HILLIARD, M.R.C.S. Eng., L.R.C.P. Lond.,
Assistant Instructor in Anæsthetics at the London Hospital and Anæsthetist to the Royal Dental Hospital.

A DROP-BOTTLE FOR THE CHLOROFORM-ETHER ANÆSTHETIC MIXTURE.

DURING the past ten years I have found a mixture, consisting of one part of chloroform with two parts of ether by volume well shaken together, to be a most valuable anæsthetic when administered upon a honeycomb-sponge by means of Dr. J. F. W. Silk's celluloid Rendle's mask. My own method has always been to hold the mask with the left hand close to, but not touching, the patient's face before the anæsthetic is poured on, and after instructing the patient to breathe slowly through the mouth to introduce the mixture upon the sponge in the flannel lining at the distal end of the

FIG. 1.

mask by inserting the spout of a suitable drop bottle through the most convenient of the holes which are pierced through the celluloid for respiration. By this means a gradually increasing strength of vapour can be administered without

FIG. 2.

removing the mask until the third stage of anæsthesia, with a weakly active corneal reflex, is attained. The bottle for this purpose should hold four ounces of the mixture and possess a bayonet catch to the stopper, so that it may be fixed open and the spout may then deliver a free stream of anæsthetic when the bottle is held by the body without the necessity of pressing the stopper with the index finger.

Messrs. Allen and Hanburys of Wigmore-street have made a bottle suitable for this purpose which packs easily into the mask for transit, as shown in the accompanying illustrations.

Mansfield-street, W. H. BELLAMY GARDNER.

THE LANCET.

LONDON: SATURDAY, JULY 29, 1905.

The British Medical Association: The President's Address.

THE Presidential Address of the British Medical Association, delivered by Mr. G. COOPER FRANKLIN, surgeon to the Leicester Infirmary, and printed in our columns this week, forms an interesting contribution to one of the most important questions in medical politics. Medical education is in a critical position in many ways, and all discussion which deals with the numerous questions pressing for solution will be welcomed by thoughtful members of our profession. After a brief *résumé* of medical education before the Act of 1858 Mr. FRANKLIN describes with some detail the curriculum of the medical student of the present day and as a result comes to the conclusion that the prescribed course of training is still, as it has been in times gone by, deficient in three particulars. He considers that the quality of the preliminary examinations is poor, that insufficient attention is paid to obstetric medicine, and that practical experience in the administration of anæsthetics is not adequately provided for. It is a relief to come across concrete objections to the present state of affairs instead of merely nebulous abuse of British technical training, or criticism of the proceedings of the University of London, or complaints of the inefficiency of the examination system; and Mr. FRANKLIN will find his words to be all the more heeded that their purport is so straightly defined.

One of the main defects in the present education of the medical student is undoubtedly constituted by the fact that certain of the examinations which form an introduction to the career of a medical man are not sufficiently stringent. Mr. FRANKLIN'S consequent proposal is that every medical student should pass an examination of equal stringency to the matriculation examination of the University of London. We quite realise that the increasing scope of medical knowledge makes it necessary that the medical student should be increasingly receptive but this proposal seems to us to be a little extreme. The matriculation examination of the University of London, owing to improvements in its arrangement, is no longer the stumbling block to the student that it was, but it remains a test for which a lad of 17 or 18 years of age requires good teaching if he is to be brought up to the point of learning at which he is fairly sure to pass it. Many lads of the indicated age, as well as many young women among their coevals, can pass it with ease, but some who are really abler students find it a most awkward check to their progress, a check which they can hardly surmount unless they are specially "coached" to that end. It has to be remembered that boys of 17 are not all of the same age, some being men in their powers of concentration and in their early development, while others are veritable schoolboys. By the age of 24 or 25, however, a levelling process will set in, the forward lad comes back to those whom he had distanced, the backward lad catches many of those who bade fair to outstrip him entirely. It is the chief argument against an examination of real stringency at the age of 17 that the barrier may prove unimportant to men who at the age of 24 prove themselves capable of no great intellectual achievement, while it may terribly impede the career of other men who, on arriving at the age when individual action is necessary, display themselves as the possessors of real originality. It must be admitted that from the medical student's point of view the best thing that can happen to him is to have his career blocked at the outset by a thoroughly stringent examination—such an examination is a blessing in disguise. Over and over again it has been found that the student who starts his career in possession of a good education of a general sort finds no difficulty in passing the professional tests to so many of which he has to submit himself later. And yet the matriculation examination of the University of London is too severe to form the portal to the medical profession. The best course at the present moment is probably an intermediate one. A stringent examination guards the portals of the Foreign Office, of the Home Office, of the Indian Civil Service, of the Treasury, and so on, but it must be remembered that those who pass it are, to a certain extent, made men. Their parents ought not to grudge for them the expensive education and special "coaching," because good interest is reaped on the capital expended. But this position does not prevail in the case of the medical student and his entrance examination ought not to be made of the kind that will burden the purse of his parents, or that will lead to the rejection of valuable candidates whose powers for this reason or that are slow to develop. Yet the entrance examination for the medica profession ought to be of a much higher standard than it now is at many centres of medical education. The smattering of knowledge which is all that the medical student need possess when he enters upon his professional career is of no real service to him and this is a situation with which the General Medical Council must soon deal.

With regard to the lack of practical teaching of obstetric medicine and of anæsthetics at our medical schools we think that these reproaches cannot be so fairly urged to day as they could have been five years ago. The inspectors and visitors for the General Medical Council of the various final examinations of the United Kingdom have been careful to insist that the tests in obstetrics should be so far as possible practical, and as a result the student is now better equipped than formerly for one of the most important parts of his professional life. It is not possible to insist upon a course of training for all medical students at a special hospital devoted to midwifery having regard to the amount that has to be got through in the five years of the curriculum, but short of this all care is, we believe, now taken to perfect the knowledge of the student in practical obstetrics. It must be remembered also that attention to ordinary antiseptic principles means so much in the conduct of a normal labour that the general instruction obtained in the surgical wards furnishes a large

part of the routine of midwifery practice. As regards a knowledge of anæsthetics, their administration is taught now at most hospitals and students have opportunities at many medical schools of producing anæsthesia under the immediate eye of an experienced anæsthetist. Mr. FRANKLIN has rightly urged the necessity of the medical student being familiar with these two important branches of his life-work, but we think that he has hardly appreciated how entirely his views are the views of those responsible for medical training.

The British Medical Association: The Address in Medicine.

WE may congratulate the British Medical Association on its selection of Dr. HENRY MAUDSLEY to deliver the Address in Medicine and likewise felicitate him on his choice of the subject of "Medicine, Present and Prospective." To review the present position of an advancing science and an applied art such as medicine and to indicate fruitful fields to cultivate in the future requires a catholicity of range, a depth of knowledge, and a position of disinterested detachment which it is given to few to possess. Fortunately, our profession owns in Dr. MAUDSLEY a physician who is at once a philosopher and a man of profound and original thought, with the faculty (too rare nowadays) of expressing his opinions in graceful yet lucid language. The address delivered by him is a model of its kind, affording material for careful consideration and ideas for future advancement; there is at times a vein of gentle satire, incisive but never unkind, which gives a piquancy to it. After enunciating the truism that error does not become truth because it is repeated thousands of times by many thousand persons, he suggests that "if a competent thinker constituting himself a sort of *advocatus diaboli* were to write a book entitled 'Medical Doubts,' setting forth reasons why some accepted truths may not after all be true, he would do a real service to medical science." In this we agree with Dr. MAUDSLEY and may express the wish that he will constitute himself the mentor and yield to medicine this needed service. "There is no darkness but ignorance," said the jester in *Twelfth Night*, so in science there is no stagnation like that due to the blind acceptance of time-honoured dogma.

The pace of medical progress was never so rapid as during the last 50 years says Dr. MAUDSLEY, and though the right of present congratulation is rather to surgery yet he is anxious lest the surgeon in his zeal to restore quickly the normal shall supplant instead of aid nature, and points out the mutual aid and instruction which surgery and medicine may and should afford to one another. He rightly deprecates the present tendency to multiply words, too often of barbarous construction, descriptive of operative procedures or diseased conditions as not only unpleasing but a positive hindrance to thought. The future of medicine lies in the prevention of disease or in the arrest of its early processes; at present too often the medical practitioner is hampered in these matters by the late stage at which he is summoned to intervene; early arrest, no less than prevention, is to be preferred to cure. In prevention there are two plain courses to be followed: the one by precautions to prevent those attacks which arise from without, whether in gross form or of microbic nature, and the other to obviate the predispositions to disease by fortifying the powers of resistance of the organism against these same inimical agencies. It is this second aspect of preventive medicine, until recently somewhat neglected, which forms the main theme of the Address in Medicine. The question is asked whether we might not with advantage study the effects of marriage unions of different tendencies and immunities as factors in increasing or lessening predisposition to diseases and in illustration inquiry is made as to what is the constitutional disposition, if any, most likely in breeding to diminish a tendency to cancer or insanity. When we find the answer to such questions we shall have an opportunity of enunciating and applying practically rules such as Mr. FRANCIS GALTON desires as the basis of his new science of eugenics. In this connexion Dr. MAUDSLEY is glad to note that the present position of medicine in relation to tuberculosis shows a wise recognition of the necessity of fortifying the body inwardly to resist infection—that is to say, to lessen vulnerability rather than to hope for the absolute elimination of exposure to infection. While recognising the value of sanatoriums, he regrets the want of sobriety in some medical statements on the popular platform whereby public opinion is misled into supposing that pulmonary tuberculosis is curable and is no longer to be regarded as a bar to matrimony. He asks, "Can we eliminate the predisposing influence of heredity?" And again, "Might not the ultimate cost to the commonwealth be greater were these persons [the 60,000 or so consumptives who die annually in England and Wales] to go on living and breeding in it?" He admits that the subject is a tender one and continues: "Human life is so precious nowadays in all its states—phthisical, insane, criminal, inebriate, and the like—that it is the pious duty of the social organism not, as the healthy bodily organism tries to do, to extinguish or extirpate a morbid element, but to absorb it into its system, growing sympathy being the vital principle of social growth," but he fears the ultimate issue of such morbid absorptions. Of course, as he points out, these matters are not the concern of medicine but of sociology or eugenics. None the less, we cannot but feel that here he is perhaps too pessimistic; we may hope that the present is but a phase—a mere stage on the road to the general improvement towards which all research is directed, when disease processes can be dealt with at an early stage and morbid tendencies repressed or eradicated, and these indeed are the methods which he himself advocates. At the same time it is a matter for the common sense of the nation in general to determine whether the reproductive capacities of the unfit shall in the interests of the race be prohibited.

Like H. D. THOREAU, the apostle of simplification, Dr. MAUDSLEY pleads for the observance of the simple salutary rules of life and for temperance in matters mental and emotional as well as physical. He refers to the rôle which chemistry and physics, especially the newer discoveries, are playing in the elucidation of many vital problems, of the importance of the complex by-products of vital processes as poisons when function is deranged, and of

the toxins of extraneous organisms, such as bacteria, in producing disease processes. After pointing out how chemical research is steadily sapping the barrier between organic and inorganic nature and has now reached the very confines of life, he foresees that it is inevitable "that all divisions of science shall gradually be effaced, even that which metaphysics has fixed between bodily and mental life, the partitions being received as conveniences of thought, if all nature be one process of orderly evolution and the function of science be to find it out." He is of opinion that the artificial barrier set up by metaphysics between body and mind has been a hindrance in the past and he proceeds to show the absolute and essential unity of both and the importance of so regarding them whether from the physiological or the pathological point of view. "Mind works in every function of the body; a sound body is the foundation of a sound mind; and the lunatic is lunatic to his finger-tips," sums up his views in his own words. He further hopes just as increasing knowledge in other branches of biology leads to practical advances, so also that a more clear and just conception of the subtleties of the forces at work in mental action may lead to their scientific application to cure diseases of the body. He foresees that medical science will play a large part in the future improvement of the race and that the laws of mental breeding, yet to be discovered, will play a part in that improvement. It is a mistake to assume that moral qualities are not dependent upon physical constitution, and vice and sin require scientific inquiry and explanation if they are to be eradicated no less than poisons do. "If one thing is certain," says Dr. MAUDSLEY, "it is that wrongdoing—whether error, vice, or sin—is avenged on earth—not always, it is true, on the individual wrongdoer, but somehow, somewhere, on others bound together with him vitally in the social system."

The British Medical Association: The Address in Surgery.

MR. C. J. BOND imparted a somewhat novel tone to the Address in Surgery by deviating from the lines which have become traditional. It has been the custom almost invariably for the orator to dwell upon the recent successes of surgery and to show the advances which have been made. Mr. BOND, however, took as his subject an interesting physiological question—that of the possibility of a retrograde current in mucous canals. Physiology is usually regarded as the handmaid of medicine and surgery, but in this case Mr. BOND claimed that surgery was helping to solve an important physiological problem. It has long been known that patients to whom has been administered a castor-oil enema claim to be able to taste the oil, and cases have even been recorded where the patient has vomited a small portion of a substance introduced into the rectum, though in some of these the possibility of malingering must be considered. The fæcal vomiting of intestinal obstruction is analogous and of this two explanations have been given. According to one the peristalsis of the bowel has been reversed, though any other evidence of such an occurrence is lacking, and according to the other theory there has been an upward central current reflected from the obstruction. The hydraulic possibility of this latter theory is not beyond doubt and it must be confessed that the true explanation is not yet forthcoming. Mr. BOND'S observations deal, however, with less gross manifestations of a retrograde current in mucous canals, his experiments being made on the large intestine, the female generative tract, the upper intestinal, the urinary, and the respiratory tracts, and also the ducts of glands.

In nearly all these regions he has utilised cases in which fistulæ have formed, or been made, and he has introduced an insoluble coloured powder, indigo or carmine (carefully sterilised), into the lower aperture of the canal, and after an interval he has been able to demonstrate the presence of the pigments at the fistula. For instance, in a case of fistula after an excision of a portion of the sigmoid flexure for carcinoma Mr. BOND introduced some carmine into the rectum and within 24 hours the colouration of the carmine could be distinctly seen at the colectomy wound. In another case, where an operation for acute appendicitis with abscess resulted in the formation of a fistula communicating with the cæcum, indigo suppositories were introduced into the rectum. Three days later the particles of indigo were found in the discharge from the fistula. Still more surprising, however, is the fact that during those three days, while the particles of indigo were making their way slowly upwards along the colon, the patient took two aperients and free actions of the bowels occurred on all three days. In this case it is clear that the upward movement could not be due to any reversal of the peristalsis, for during the upward progress of the pigment there was an energetic peristalsis in the opposite direction. Even a marked narrowing of the bowel cannot stop this upward movement, for in one case there was apparently complete malignant obstruction high up in the rectum, yet indigo introduced in the anus showed itself at the colotomy wound within 24 hours. We must suppose that though complete obstruction to the passage of fæces was present, yet the occlusion was not absolute. Care was taken in all cases to prevent the direct transference of the pigment from the anus to the colotomy wound, so that we cannot deny that there was a slow upward movement of the indigo or carmine from the anus to the fistulous opening in the left or right groin. In considering the method by which this removal was effected we must bear in mind that as insoluble pigments were chosen it is impossible for the blood or lymph stream to be responsible for the ascent. It is not due to any capillary action, for in the dead bowel no upward movement occurs. Mr. BOND considers that any increase of peristalsis, as produced by an aperient, favours the upward current. This movement has been shown, also, to occur even in healthy bowel, unmodified by disease or operation, for a guinea-pig has been killed 48 hours after some indigo had been inserted in the rectum and the pigment was discovered high up in the colon.

Mr. BOND claims that the explanation of these phenomena is to be found in the presence of an upward mucous current close to the mucous membrane, capable of carrying minute particles with it. He does not suppose that this peripheral

current is continuous but suggests that it may be intermittent and perhaps alternating with the downward peristalsis. Experiments have been made with particles of various sizes and Mr. BOND found that the particles of lycopodium powder were the largest that could be carried. Observations, essentially similar, were made on the upward passage of solid particles along the female generative tract. When indigo was placed just within the os uteri in cases of disease of the Fallopian tubes 24 hours before the operation for the removal of the diseased tube, in the vast majority of cases the pigment was found in the contents of the tube. The operation of cholecystostomy afforded many opportunities for observing the upward passage of pigment along the common cystic ducts, the indigo having been administered by the mouth. We need not detail the result of Mr. BOND'S observations on the urinary tract and the breast, although in these cases also very definite evidence of the upward passage of pigment particles was obtainable; for the particulars we must refer our readers to the paper itself which is published at p. 275 of our present issue. The practical importance of these numerous observations is obvious. If large solid particles like those of indigo and carmine can be carried from the anus to the cæcum, from the duodenum to the gall-bladder, from the external os uteri to the Fallopian tubes, from the nipple to the interior of the mammary gland, and from the bladder to the kidney, we may well conclude that the far more minute bacteria can also pass readily in the same direction, and thus we have an explanation of many infections hitherto inexplicable. In the case of the breast we can appreciate the especial importance of these observations, for the occurrence of all forms of microbic mastitis can be easily explained. And it is certain that Mr. BOND'S observations will impress on the surgeon more strongly than ever the danger of infection of many tracts by the introduction of micro-organisms into their outer openings. Other observers will repeat, confirm, and extend the experiments described in Mr. BOND'S address and it may well be that we are underrating the importance of this upward mucous current, now first described.

The Proposed Amalgamation of London Medical Societies.

A TIME has come when it behoves every member of every kind of medical society in London to think carefully of his future as such a member. For representatives of his society will be called upon, presumably at no very distant date, to state that society's views as to the desirability of amalgamation with other societies. And these representatives will, we hope, be justified in feeling that the opinion which they express is the deliberate choice of, at any rate, the great majority of their fellow members. What that opinion will be we do not care to speculate, but we may candidly state our own warm sympathy with the scheme as it is suggested by the report of the executive committee, to the appointment of which we alluded recently,[1] and we may draw attention to a few of the arguments which ought to influence members of all the societies and their representatives. Every reform, no matter in what sphere of social or political life, entails difficulties and arouses resentments whether of a general or of a private nature. The wise man, however, is able to judge between his individual feelings and the general advantage, and to vote for that which enhances the one even if it at the same time rather sacrifices the other. It is some such wisdom that many of our readers will be called upon to exercise if they are asked to merge their own particular society into an institution comprising also all the sister bodies. Yet whatever be the particular society to which a man belongs, however dear its ancient traditions, however revered its surroundings, and however flourishing its financial state, we believe that its members will gain more by the apparent sacrifice that they may be called upon to make than they will by a conservatism which, if it keeps for them one or two comparatively small privileges, certainly robs both themselves and many members of less influential societies of the benefits that accrue from a great central institution. That a certain amount of sacrifice is involved in the proposed change is inevitable. A pleasing sense of individuality must be given up, but the individuality which tends to keep a special branch of medical study apart from all other branches should be lost with no regret. The sacrifice of money to which it is possible the richer bodies may be put is one that will not, we believe, influence their rulers when it is a question of helping to extend great benefits to the whole medical profession of the country. Moreover, as the report points out, the financial practicability of the scheme, and consequently the financial damage to be incurred in any direction, is uncertain until a definite statement is possible as to which societies will join the proposed Royal Society of Medicine.

Some of the societies again possess valuable libraries and may look with apprehension upon their removal from an old-established resting place. They will, however, be removed to one as safe and as dignified, only perhaps more frequented. There is no doubt that the accumulation under one roof of the several fine medical libraries, general and special, belonging to various London societies will be of the greatest service to workers in many branches of medicine and the sacrifice of duplicate copies, weighs as nothing against the advantages of one complete library of reference. The economy in the working staff that is derived from concentration of this kind needs no demonstration. This economy, moreover, is likely to remove from the harassed hands of honorary secretaries much labour that can be conveniently accomplished by the regular efforts of a paid official. The report of the executive committee, which we publish on p. 310, seems to warrant the supposition that the new society would start upon a sound financial footing. For in supposing that about 4000 members of societies, other than the Royal Medical and Chirurgical Society, would become members at the rate of a guinea per annum we do not think too high an estimate of the probable number has been made. Indeed, it seems pretty certain that so far as the individual member of any one society is concerned the new scheme gives nothing but advantage. It is only where a society as a corporate body is concerned that there can be any question of the gain in amalgamation. To most of the societies it will be a gain in prestige

[1] THE LANCET, April 15th, 1905, p. 1008.

to form part of a Royal Society, and to all it will afford the satisfaction of an increased sphere of usefulness. That this would ensue from an amalgamation scheme we have no doubt at all and may point in illustration merely to one feature of the institution as proposed in the report of the executive committee. We allude to the monthly publication of the proceedings. Such a periodical would be of the highest value to every medical man who aims at keeping his knowledge up to date in all its branches. Moreover, such a publication is impossible except as coming from a body of the nature of the proposed Royal Society. We cannot be accused of partiality when we refer to the value of a periodical of the nature suggested, for without a doubt it would seriously affect the interest of certain portions of our own pages. The monthly periodical would offer a boon not to its readers only but perhaps even more markedly to the authors of the papers. At the present time so long a period elapses between the evening when a paper is read and the date at which it appears in the Transactions that interest has often diminished even if fresh and contradictory material has not discounted the original value of the writing. Moreover, there would be a certain authoritative value about the publications of the Royal Society of Medicine and in the case of papers selected for publication in the yearly Transactions this would be very great. In fact, the selection of the papers would, we imagine, form one of the most formidable of the difficulties confronting the executive of the new body. No doubt each section would be represented on the selection committee for the Transactions, but even then it is easy to imagine heart-burnings over non-selected papers with subsequent suggestions th the sectional representation was inadequate or inefficient.

All such questions as these, however, are matters of detail and in no way really affect the broad principles of the scheme which alone the report pretends to put forth. Both the ideas represented and the manner in which they are put forward appear to us to reflect great credit upon the executive committee and in particular upon its secretaries whose labours must have been anything but light. One detail over which there will doubtless be much difference of opinion is the title of the new amalgamated society of medicine. In these columns we have occasionally spoken of the future body as the Royal Society of Medicine and this is one of the suggested titles. We have chosen it by way of silent protest against the suggested alternative. "Academy" is, we think, a word carefully to be excluded from the name. Either it conveys the impression of a selective exclusiveness which cannot appertain to any body of the nature of the proposed amalgamated society or it reminds us of an institution that exists to foster art and is largely notorious for neglecting even the best exponents of art unless they conform to an uninspiring conventionality.

DONATIONS AND BEQUESTS.—Mr. Philip H. Vaughan has given £5000 towards the £50,000 which the committee of the Bristol Royal Infirmary is raising.—Sir Massey Lopes, Bart., has increased his endowment to the Plymouth Public Dispensary by £500, making his endowment now £2500.

Annotations.

"Ne quid nimis."

THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE British Association for the Advancement of Science, as all our readers know, will this year hold its meeting in South Africa, the main proceedings being divided between Cape Town and Johannesburg, whilst lectures and addresses will be delivered at various other towns. This is the third time only since the foundation of the society in 1831 that it has met outside the United Kingdom, Canada having been chosen as the place of meeting in 1884 and in 1897. The inaugural meeting this year will take place at Cape Town on August 15th and on the following day Professor G. H. Darwin will deliver the first half of his presidential address, the second portion of which he will deliver at Johannesburg on August 30th. He proposes to discuss the general principles involved in theories of evolution with special reference to the world of inanimate matter. In addition to Cape Town and Johannesburg the itinerary of the association includes Durban, Pietermaritzburg (where Colonel David Bruce, R.A.M.C., will deliver a lecture on sleeping sickness), Pretoria (where Professor A. E. Shipley, the University Lecturer at Cambridge on Advanced Morphology of Invertebrates, will discuss fly-borne diseases and malaria), Bloemfontein, Kimberley, and Bulawayo. The matters to be discussed are divided into 11 sections but Sections D and I, which deal respectively with Zoology and Physiology, will naturally appeal most closely to the medical members. In Section D Mr. L. Doncaster will discuss recent work in Gametogenesis and its Bearing on the Theories of Heredity. Colonel Bruce, R.A.M.C., who is president of Section I, will take for his subject the Advance in our Knowledge of the Causation and Prevention of Stock Diseases in South Africa during the last Ten Years, such as rinderpest, pleuropneumonia, and horse-sickness. Dr. Theiler and Dr. G. Turner, medical officer of health of the Transvaal, will also read papers on the same subjects. Professor G. Sims Woodhead will discuss the subject of Dysentery and other papers are announced to be read by Dr. D. Ferrier, Dr. D. Macaulay, and Dr. Louis G. Irvine. Other medical men who may read papers or open discussions in this section are Sir Lauder Brunton, Professor Mackendrick, Dr. A. J. Gregory, Dr. A. Jasper Anderson, Professor Bohr, Dr. J. A. Mitchell, Dr. R. S. Black, Mr. John Maberly, Dr. A. Edington, and Dr. W. Robertson. In connexion with this meeting the proprietors of *Knowledge* have issued a special number of their journal, which contains a biographical notice of the President of the British Association with portrait, a sketch of the origin and progress of the British Association, with portraits of the presidents of sections, a route map showing the various places to be visited by members of the Association, and articles on the Races of South Africa, the Diamond Mines of South Africa, South African Natural History, the Extinct Reptile Fauna of South Africa, the Zambesi and its Sights, and many other features of interest both to those who are fortunate enough to be able to visit South Africa and to those who are compelled to follow the proceedings of the Association as reported in the scientific journals at home.

LONGEVITY.

THE question how shall a man live to be 100 years old has been asked by many generations of men. Anciently the belief in extreme longevity was based on Scriptural authority or on the analogy of certain folk-lore traditions according to which some animals, such as crows and deer attain

to immense ages. In the Middle Ages, in fact, the stag was supposed to be capable of living 1000 years, and it required all the acumen of Sir Thomas Browne in his "Popular Errors" to show that deer are not likely to be long-lived and that, as a matter of fact, some 30 to 36 years probably mark the span of their existence. Sir Thomas Browne argued that there is a certain ratio between the years of growth and those of decline, and at a later date Flourens worked this theory out and concluded that animals have the capacity, as a general rule, of living five times longer than their growing period. "Assuming this," wrote Dr. Protheroe Smith in 1885, "as regards man, on an average, to be 21 years (and excluding accidents, diseases of heredity, and unhealthy and unfavourable surroundings and habits), our term of life should be at least 100 years." The growth of what Dr. Protheroe Smith called spino-pelvic deformity was held by him to shorten life. Accordingly he proposed to keep the pelvis in its "natural oblique plane" by means of a "pelvic band," by which "the pelvic plane is easily restored to the normal angle of 140 degrees" and the viscera are kept in their proper places. It is the displacement of the viscera through loss of the spino-pelvic curve in old age which produces derangement of "the pelvic and the renal organs." These often "give out first in the final struggle to avert the termination of life." The "pelvic band," by keeping everything in place, keeps the human frame youthful despite the advance of years. Dr. Protheroe Smith, in fact, was for the attainment of longevity by the use of an appliance. His was the anatomical view. Sir James Crichton-Browne, on the other hand, is reported to have said recently that improved sanitation and a quiet life would conduce most to the attainment of a measure of existence far exceeding the 70 years spoken of by Moses in Psalm 90. In this view he follows Sir James Sinclair who wrote on longevity in 1807 and held that it depended chiefly on regimen and favourable external conditions.

THE IDEAL MILK FARM AND THE PRODUCTION OF MEDICALLY CERTIFIED MILK.

IN an interesting paper read at the recent meeting of the Royal Institute of Public Health Mr. H. Reginald Rhodes described the method by which medically certified milk is produced in the United States and he also said that if he was encouraged he was prepared to develop and to advance the principle of this method in England. Medically certified farms have been established in the State of New York during the last few years for the express purpose of producing milk of the very highest attainable purity by means of a system of rigorous cleanliness and precaution against all possible sources of contamination through the cows, the employés, or the utensils. Everything is sterilised except the milk which is produced as nearly as possible under aseptic conditions. At the Woodlawn farm the dairy buildings consist of two main blocks: (1) the living or feeding cowhouse; and (2) the washing and cleaning shed and the milking and bottling shed. The day's work commences quite early in the morning when each cow is led singly and in turn from the stable into the washing and cleaning shed. Here it is washed antiseptically with sponges and brushes and dried with sterilised towels. The cow is then taken to the milking shed. The milkers are required to wash themselves thoroughly in a bath-room provided for the purpose and to wear clean linen clothes which are frequently washed and sterilised twice daily. The milk is passed directly from the milking stable through a "drum" in the bottling room and is bottled immediately. All bottles and utensils are kept rigidly clean and are sterilised before and after use. In the bottling room troughs of water are kept at a very low temperature by means of pipes from the refrigerator in the building. The bottles of milk are kept quite cold after filling and sealing. The latter is done by means of a special pasteboard cap covered by a capsule furnished by the medical inspector. The bottles in the cooling troughs are subsequently packed in ice in cases of one dozen each and distributed. Special attention is paid to the conditions under which the cow is kept and stalled. There are no mangers or feeding troughs. All fodder is eaten from a concrete floor and once or twice each day the whole surface is swept with water from a hose pipe. The walls are paint-enamelled and are washed regularly. The cows are not allowed to graze on the farm land but the buildings in which they are kept and in which the various operations are carried on are well ventilated and well lighted. The system is obviously based on sound hygienic principles and its promoters candidly admit what must be equally obvious that its adoption raises the cost of milk production. But the question of cost may be dismissed when the gain to human health and life which would result were the system made universal is considered. The experience in New York is that the demand for medically certified milk is greater than the supply, though it costs about 1*s.* per quart. In England certain items of expense, however, could be reduced, as, for example, that of labour, and the price of the milk would be correspondingly less. It is urged that by insisting on the cleanly methods outlined the bacteria in the milk are diminished from 5,000,000 in ordinary milk to some hundreds only per cubic centimetre in the milk produced under hygienic precautions, and this is a strong argument for the abandonment of methods which only too clearly are not in accordance with the requirements of public health. It is highly desirable that milk as a factor in disease and mortality should be as far as possible eliminated.

DEMENTIA PRÆCOX.

AT the meeting of the American Neurological Association, which was held in September, 1904, Dr. B. Sachs opened a discussion on this condition and his paper has been published in the *Journal of Nervous and Mental Disease* for June, 1905. Dr. Sachs observes that the definition of dementia præcox as given in the writings of Kraepelin and his followers is broad enough to embrace almost every form of psychic derangement in the young. There is consequently a great temptation to diagnose a vast majority of the cases of mental disease in youthful persons as cases of that disorder. If this were justifiable the age of the individual would of itself postulate the diagnosis. Dr. Sachs enters a strong protest against these tendencies. The only feature which the forms of the disease distinguished by Kraepelin have in common is a supposed termination in dementia, but even this writer states that in 17 per cent. dementia never sets in and that in others there are long periods of remission during which the patient enjoys perfect health. In former days, when the insanities of adolescence were diagnosed under various headings, we were content to state that in certain circumstances, such as frequent repetition of the attack or presence of distinct hereditary taint, dementia might ensue. Dr. Sachs asks whether there is any gain in pushing the idea of dementia into the foreground and then setting the seal of ultimate mental deterioration upon these cases. He considers that the term "dementia præcox" implies a far too grave prognosis in many of the cases. A case is detailed in which this disorder was diagnosed by a well-known alienist but the patient regained almost completely his mental health and his subsequent history showed that it was a distinct injustice to make a diagnosis of dementia. In a second case which occurred before the spread of Kraepelin's

doctrine but in which, had the patient been examined at the present day, the diagnosis of dementia præcox would no doubt have been insisted on, a complete recovery took place, the individual attaining a prominent position. The limits of the paper preclude the record of further cases which show that a process of apparently progressive mental deterioration may be arrested and that the patient may regain full mental vigour. Whilst protesting against the too extensive application of the term "dementia præcox" Dr. Sachs is willing to admit that our knowledge of the youthful insanities has been considerably advanced by its introduction.

THE STANDARDISATION AND STORAGE OF DRUGS.

AT the opening of the annual meeting of the British Pharmaceutical Conference at Brighton, last week, the President, Mr. W. A. H. Naylor, F.I.C., chose as the subjects of his address the Standardisation and Storage of Drugs. The object of standardisation is, Mr. Naylor said, to secure uniformity of strength, more especially in respect of medicinal activity. The required standard may have a physical, chemical, or physiological basis and may have reference to one or more definite principles or to a mixture of undefined substances. It should be the aim of the pharmacist to produce preparations that will fully represent the therapeutic activity of the drugs operated on, except in cases where it is desired to obtain the medicinal effects of certain definite principles to the exclusion of others. As an illustration, a preparation of opium might be required free from narcotine. In the case of drugs containing several active constituents it may in the future be desirable to apply the process of standardisation to certain principles hitherto disregarded which modify the therapeutic action. The pharmacologist may be depended on to point the way and, with the assistance of workers skilled in pharmaceutical research, to overcome the present tendency to produce a preparation and to standardise it on the basis of one particular principle, regardless of other constituents which may, directly or indirectly, be of therapeutic value. For instance, according to present knowledge the chief active constituent of scopolia and henbane is hyoscyamine. If a tincture of each be prepared so as to contain the same percentage of alkaloid it is doubtful whether, from a therapeutic point of view, it is a matter of indifference which of them is selected for use. The fact that the physician finds it advantageous to administer henbane at one time and scopolia at others suggests that these drugs do not give identical results. This may be taken as *prima-facie* evidence that other constituents are present which modify the action of the hyoscyamine. Mr. Naylor devoted some attention to a number of potent drugs for which there are at present no satisfactory methods of standardisation, including Calabar bean, hemlock, henbane, jaborandi, stramonium, and strophanthus. The most recent investigations of Calabar bean point to the presence of three bases, of which eserine is supposed to represent the therapeutic properties on which the physician depends when he prescribes the official extract. In the case of hemlock the medicinal properties of the drug may be due to one or more of the following constituents, coniine, ethyl piperidine, methyl coniine, conhydrine and pseudo conhydrine. From the experiments of Findlay we may conclude that the fluid extract of hemlock and the mixed alkaloids obtained from the drug act physiologically in a manner analogous to pure coniine. Hence the determination of total alkaloids in preparations of hemlock would probably serve the purpose. The standardisation of preparations of henbane is complicated by the fact that in addition to hyoscyamine the drug contains hyoscine, which is readily changed into atroscine (optically inactive scopolamine). It is not known whether hyoscine and atroscine have the same physiological value, hence it is desirable that care should be taken to prevent the change as far as possible during the manufacture of preparations of henbane. Jaborandi affords another problem in standardisation, as this drug contains at least two alkaloids, pilocarpine and isopilocarpine. Professor Marshall has shown that while these alkaloids produce similar effects on the secretory activity of the sweat and salivary glands, the former is the more powerful. It would seem advisable to base a method of standardisation of jaborandi on the amount of pilocarpine which it contains. The standardisation of stramonium on the basis of the mixed alkaloids would scarcely be justified in the absence of precise information as to the physiological value of the several alkaloids. A preliminary announcement has just been made by Professor Ernst Schmidt of Marburg that the only mydriatic alkaloid present in stramonium is hyoscyamine, so that it may be possible in the near future to fix a definite standard for this useful drug. Perhaps there is no drug that shows greater variations in the strength of its preparations than does strophanthus. There is little doubt that its usefulness in affections of the heart is due to the glucosidal principle first isolated by Fraser from *strophanthus kombé* and named strophanthin. But different species of strophanthus appear to yield glucosides which vary in their degree of toxicity, chemical constitution, and physical characters. To add to the confusion the seeds that reach this country are the mixed products of several species of strophanthus and they resemble each other so closely that they cannot be distinguished macroscopically. Fortunately, one species, *strophanthus gratus*, is readily distinguished by inspection from all other African species and contains a crystalline strophanthin which, according to Thoms, is identical with Arnaud's ouabain. A process for standardising strophanthus may therefore be regarded as within sight. Speaking of the storage of galenical preparations Mr. Naylor drew attention to the liability to loss of active principles by chemical change or precipitation on keeping. In his experience varying conditions of storage produce changes in galenical preparations. Even under the same conditions of storage they are not equally affected. The preparations of belladonna and nux vomica appear to be the most stable, those of cinchona less so, and the liquid extract of ipecacuanha the least of all, the loss of strength in each case being largely due to precipitation. Pharmacists, therefore, cannot bestow too much thought and care upon the storage of important preparations which, even when kept under the most favourable conditions, are not free from liability to a reduction in strength and consequently to impairment of their medicinal value.

THE INTERNATIONAL SOCIETY OF SURGERY.

As we announced last week the first Congress of the International Society of Surgery will be held in Brussels in September under the patronage of His Majesty the King of the Belgians. The congress will be in session from Monday, Sept. 18th, to the following Saturday inclusive, under the presidency of Dr. Theodor Kocher, professor of surgery in the University of Bern. The morning of each day will be arranged for visits to hospitals and clinics, for the exhibition and examination of patients, and for other matters of interest connected with the congress as well as with the city of Brussels. The afternoons will, so far as possible, be reserved for the consideration of the subjects selected for discussion. These are as follows:—1. The Value of the Examination of the Blood in Surgery. 2. The Treatment of Prostatic Hypertrophy. 3. Surgical Intervention in Non-cancerous Diseases of the Stomach. 4. Treatment of Articular Tuberculosis. 5. The Treatment of Peritonitis. 6. The Diagnosis of Surgical Diseases of the

Kidney. Other communications of a practical nature (*of* which due notice should be given as well as the time they will occupy), including the presentation of patients, specimens, and surgical instruments and appliances, may be made. Messrs. Thos. Cook and Son, Ludgate-circus, London, E.C., have been asked to make suitable arrangements for the convenience of members of the profession going to Brussels from Great Britain. Facilities for a visit to the Liège Exhibition might be included in these arrangements. All information in regard to travelling may be obtained from Messrs. Cook but inquiries about hotel and lodging accommodation should be addressed to the secretary-general at Brussels. Further information can be obtained from the secretary-general, Dr. Depage, 75, Avenue Louise, Brussels, or from Mr. Reginald Harrison, 6, Lower Berkeley-street, London, W., delegate for Great Britain.

INTERNATIONAL LABORATORY OF PHYSIOLOGY.

IT may interest some of our readers to know that a laboratory with a hostel has been established at Col d'Olen as an adjunct to the International Laboratory of Physiology on Monte Rosa. This (lower) laboratory is mainly intended for biological research but it is understood that provision has also been made for the study of terrestrial physics and meteorology. The Royal Society has the permanent nomination to two posts, each of which includes a living room in the hostel, a bench in the laboratory, and the use of apparatus, but the expenses of living and of special researches must be borne by the investigators. The laboratory is especially connected with the University of Turin but is under the immediate direction of a committee. Applications for nominations to the two posts referred to above may be addressed to the secretaries of the Royal Society, Burlington House, London, W.

CONTINENTAL TRAVEL AND ITS DANGERS.

"THERE is in Italy," writes an Italian correspondent, "a national association to encourage the influx of foreigners (*Un' Associazione Nazionale per l'Incremento dei Forestieri*) and its directors, among whom are Members of Parliament, bankers, and other leading citizens, have recently been conferring with the Minister of Foreign Affairs, Signor Tittoni, as to the best means of obviating what is becoming a deterrent to the tourist or 'desirable visitor'—to wit, the robberies practised on the main routes by the 'ladro cosmopolita' (the cosmopolitan thief) who appears to grow in numbers and dexterity with the increase of the travelling public. His Excellency gave the customary assurances that the subject would have his immediate attention while he would redouble the vigilance of Italian representatives abroad and, by their means, enlist the coöperation of the diplomatic *personnel* of other countries for the suppression of an evil which was becoming more or less general. For some time, moreover, there has been concerted action between the heads of the police in the chief continental States; and the experiences, such, at least, as have been made public, of these functionaries and their agents are full of warning to the world so soon to be 'on the wing.' Organisation, with division of labour, has been carried by the 'ladro cosmopolita' to something very near perfection until he finds himself 'at home,' with confederates always available, from Nijni-Novgorod to Palermo, from Ostend to Seville. Always well dressed, with no lack of money, he affects the 'train de luxe,' and, most of all, the 'corridor carriage,' with the dining saloon and the sleeping compartment. There he 'takes stock' of his victim and (if, indeed, he has not relieved him of handbag or purse already) follows him to the hotel or *pension* at which he alights. There he is generally to be found in the best apartments and at *table d'hôte* or in winter garden or reading room; he is as 'correct in his conduct as in his dress, speaking more than one language fluently and volunteering help or advice often acceptable. Naples, Rome, Florence, Milan, Venice have all been favoured with his society of late, till scarcely a week passes without their journals putting on record an 'incident' of which the following is a typical example. Having secured a bedroom contiguous to that of his intended 'prey' he begins operations by perforating the wall near where his unconscious neighbour lays his head (instruments for the purpose he possesses in abundance) and at night through the aperture thus made he passes a cannula, long and fine, through which he anæsthetises the sleeper, generally with chloroform! He then forces the door, always with instruments perfectly adapted to the purpose, and at his leisure helps himself to whatever he wants from valise, handbag, or exposed purse, or jewellery, and decamps in the early morning in time for the 'through express.' A Florentine journal of the day now passing (July 18th) gives a yet more dramatic 'object lesson' in the methods of the 'ladro cosmopolita.' When he cannot get accommodated next to his intended victim he finds means during the day of 'introducing' himself into the said victim's room; he gently undoes the fixings of the lock and, again at night, he brings into play the other resources of his 'profession'—the 'maschera cloroformizzata' (the mask with the chloroform), the eel-skin loaded with small shot wherewith to stun the victim by a sudden blow; nay, the finely pointed stiletto with which to reach the heart in a twinkling, should resistance be offered. Landlords, particularly on the French or Italian Riviera, are now familiar enough with this type of 'ladro' to give him a special name—'topo d'albergo' (hotel rat) being the title he is known by in Italy. That he should be on the increase, while it testifies to the growing yield of victims, should also intensify the vigilance of the continental Governments in the course now taken by the Italian Foreign Minister. Luggage robberies, which ought in Italy at least, to be minimised by the transfer of the railways to Government control with a better manned and better paid *personnel*, have hitherto been a not inappreciable deterrent to the 'influx of foreigners.' On the other hand, the improved appointments, sanitary and other, mainly due to the 'requirements' of the English-speaking world, in hotels and *pensions* are now a distinct inducement to the visitor from abroad in search of distraction or health. It is high time that, with these reforms *in esse* or *in posse*, another should be made by the suppression of the 'ladro cosmopolita,' so as to convince the travelling world that if crime can keep pace with civilisation the latter is not without 'resources for the correction of its sinister developments.'"

THE EPIDEMIC OF ICE-CREAM POISONING AT BIRMINGHAM.

Dr. John Robertson, the medical officer of health of Birmingham, presented to the members of the Birmingham city council his report on the recent epidemic of ice-cream poisoning. In all there were 52 cases of illness. One patient was an adult 46 years of age, one 20, one 18, one 17, and the others under 14. The interval between the purchasing of the ice-cream and the onset of the illness varied from half an hour to eight and a half hours and all the patients complained of pain in the stomach and vomiting. Diarrhœa and collapse were symptoms in the majority of the cases. The chemical analysis disclosed none of the ordinary poisons. The bacteriological examination showed that it contained a poison and that in certain cases it was capable of causing inflammation and death in guinea-pigs. The poisonous property of the ice-cream was due to the presence of a bacillus or bacilli belonging to the colon group. The bacteriological analysis was

made by Professor R. F. C. Leith. It appears from the report that about 250 people purchased the ice-cream. Dr. Robertson states that the ice-cream was made amid very insanitary surroundings and in close proximity to three water-closets which were in a very filthy state. He conjectures that excremental organisms had been blown into one of the buckets of ice-cream while it was in a warm condition and that rapid multiplication of the organisms took place. The condition of the premises in which this ice-cream was manufactured was not, Dr. Robertson concludes, worse than that of many other premises where ice-cream and other foods were stored or manufactured in Birmingham, so that there was a possibility of similar outbreaks occurring on other occasions. It is to be hoped that some prompt measures will be taken by the health authorities of Birmingham to prevent further outbreaks and that other local authorities will keep a strict watch upon the manufacturers of this dangerous article.

THE CHAIR OF MIDWIFERY IN THE UNIVERSITY OF EDINBURGH.

THE University of Edinburgh will shortly proceed to the election of a Professor of Midwifery in room of Professor A. R. Simpson whose resignation of the chair has been accepted as from August 31st next. A Lectureship in Gynæcology is also to be instituted and candidates for the chair of Midwifery will have to agree on an adjustment of the several duties of the professor and lecturer under the direction of the University authorities. Further particulars may be obtained on application to the secretary of the University Court, Mr. R. Herbert Johnston, W.S., with whom each candidate for the chair is requested to lodge, not later than Friday, Sept. 15th next, eight copies of his application and eight copies of any testimonials which he may desire to submit. One copy of the application should be signed. The secretary's address is 4, Albyn-place, Edinburgh.

THE STERILISATION OF SO-CALLED DEGENERATES.

MEDICAL officers of asylums so rarely succeed in securing from the community at large that degree of recognition which their work merits that to find a superintendent's report appearing in the public press is a circumstance sufficiently remarkable to be worthy of record. The *Gloucester Journal* of July 15th devotes three and a half columns to the reproduction *in extenso* of the last annual report upon the Gloucester County Lunatic Asylums by Mr. F. H. Craddock and this fact may be regarded as evidence that the general public is at last beginning to recognise the importance of the social problem which insanity presents. Mr. Craddock's views, as interpolated among the statistics which are customary in publications of this class, though not presenting any special novelty for the medical reader, are calculated to arrest the attention of the laity and cannot fail to prove illuminative. After admitting "the inability of any attempts to cure insanity in the present state of our medical knowledge," Mr. Craddock suggests that there is only one way of dealing with this question—viz., "by rendering it physically impossible for those affected (whether more or less deeply) with the taint of insanity to reproduce their species." Approval is expressed of the sentiment that prohibition is "useless without the bistoury" and the sterilisation of degenerates on the lines laid down more particularly by Dr. R. R. Rentoul is advocated. We are so completely in sympathy with Mr. Craddock's aims that we are loth to criticise unfavourably the methods of accomplishing them to which he gives support but we are constrained to wonder whether the upholders of sterilisation have a clear conception of the magnitude of the departure from the current conventions of society which they propose. Considering the immense difficulty of obtaining even such legal powers as would enable the community to supervise and to control its degenerate members, there does not seem the slightest probability that any scheme of asexualisation will fall within the sphere of practical politics. Accepting Dr. Rentoul's quoted estimate that the proportion of mental degenerates is 1 in 50 and of the "physically diseased and undeveloped" 1 in 5 of the total population, it would appear that there is hardly a family in this country which would not have to make a sacrifice of its most cherished instincts of humanity. We believe that a certain physician of Kansas achieved some considerable share of unpopularity by performing castration on 58 boys, but it does not appear that he obtained results which simple detention would not have supplied equally well, and, indeed, it is probable that the procedure of sterilisation would only be practicable in cases where, owing to the absence of opposition on the part of friends, permanent detention would present no difficulty.

HEART-BLOCK IN MAMMALS AND STOKES-ADAMS DISEASE.

IN the *Johns Hopkins Hospital Bulletin* for June Dr. Joseph Erlanger has published some interesting observations on the phenomenon termed by physiologists "heart-block," which throw light on the rare and curious affection known as Stokes-Adams disease (persistent bradycardia with epileptiform fits). In studying a case of this disease under the care of Professor W. Osler he found that the disturbances in the circulation were obviously due to heart-block. When the block was complete the auricles responded normally to influences exerted on the heart through its extrinsic nerves, but the rate of pulsation of the ventricles seemed to be uninfluenced by changes in posture, by atropine, or by moderate exercise. However, the rate was increased by more severe exercise. On the other hand, when the block was partial the ventricles, as well as the auricles, responded normally within certain limits to extrinsic influences. During the attacks of unconsciousness the interval between the beats of the ventricle was as long as 12 seconds. These observations led Dr. Erlanger to study heart-block in mammals without destroying all the tissue in a cross section of the heart. He found that in the dog this could be done by clamping the limited region in which lies the only muscular connexion between the auricles and ventricles, the auriculo-ventricular bundle of His. When the clamp was placed in this position the heart continued to beat with undisturbed rhythm but when the arms of the clamp were cautiously screwed together the normal sequence of the auricular and ventricular beats gave place to a partial block in which the beats of the auricles were to those of the ventricles as 2 to 1. With further clamping a 3 to 1 rhythm was sometimes established and this usually passed into a complete block in which the beats of the ventricles were independent of the beats of the auricles. These changes occurred in reverse order when the clamp was unscrewed. As a rule the changes of rhythm occurred suddenly, that is, without preliminary stoppage of the ventricle. In two experiments on tightening the clamp the normal sequence gave place to complete block without passing through intermediate stages; the ventricular rate was markedly slowed and the blood pressure fell to a very low level. In one case the interval between two ventricular contractions was 21 seconds. The ventricular rate and the blood pressure then gradually increased. With each change of rhythm the blood pressure was much affected, falling with the fall of ventricular rate and rising with its increase. But even in complete block a fair pressure might be maintained. With partial block

both auricle and ventricle might be inhibited by stimulation of the vagus as easily as under normal conditions. But when the block was complete no diminution or only slight diminution of the rate of the ventricle resulted from stimulation of the vagus. The auricles reacted normally to vagus stimulation. Section of both vagi had little or no influence on the rate of the ventricular beat when the block was complete. But stimulation of the accelerator nerve usually increased the rate of the ventricle. This was sometimes as great proportionally as in normal conditions. The reaction of the auricles to stimulation of the accelerator nerve was not influenced by the block. The analogies between heart block in the dog and Stokes-Adams disease are thus obvious. Dr. Erlanger therefore concludes that the situation of the lesion must be the same in both conditions.

OVERLYING AN INFANT PUNISHED AS MANSLAUGHTER.

AT the recent Chester assizes, on July 19th, Mr. Justice Phillimore sentenced a woman, aged 31 years, to 21 months' imprisonment with hard labour. It was given in evidence that 11 days after her confinement, at Birkenhead, she insisted on taking her child, who was thoroughly healthy, to bed with her when she was in a drunken state; she slept heavily and overlay and suffocated the infant. The jury found her guilty of the manslaughter of her babe by an act of gross and culpable neglect. Many coroners have tried to secure such a verdict in similar cases of alcoholic infanticide but they find it very difficult sufficiently to persuade the inquest juries sitting upon such unnatural deaths and even where these juries have agreed to a verdict of manslaughter when the case comes before the sessions or the assizes the grand jury commonly finds "No true bill," for public opinion does not yet consider the massacre of the innocents concerned as a criminal offence capable of proof.

THE ADDITIONS TO THE SCHEDULE OF POISONS.

As announced in THE LANCET recently[1] the Council of the Pharmaceutical Society has recommended certain additions to the schedule of poisons. These suggestions have been considered by the Privy Council with the result, as announced in the *London Gazette* of July 18th, that the majority of the substances named have been added to the schedule. Of these, cocaine and its salts, picrotoxin, preparations of cocaine, digitalis and its preparations, mercuric iodide, mercuric sulphocyanide, and strophanthus and its preparations are now deemed to be poisons within the meaning of the Pharmacy Act, 1868, while cocaine and its salts and picrotoxin are deemed to be poisons in the first part of the Schedule A of the same Act. The substances not approved by the Privy Council as additions to the schedule are acetanilide, soluble salts of oxalic acid, and sulphonal. These are quite ignored by the Privy Council, in spite of the fact that the Departmental Committee on Poisons unanimously recommended the addition of these substances to the schedule. It may be that the authorities at Whitehall have listened favourably to the objections advanced by interested persons to the inclusion of these substances in the schedule. Be that as it may, the responsibility will rest with the Privy Council if further fatalities occur through the unrestricted sale of these drugs. The Council of the Pharmaceutical Society has exercised its statutory functions in the matter and has performed a public duty. This is not the first time that a Government department in its wisdom has over-ridden the representations of departmental committees and other technical advisers.

THE following are among the recent amounts received at the Mansion House in behalf of the Metropolitan Hospital Sunday Fund:—St. Mary Abbots parish, Kensington, £758 13*s.* 11*d.*—viz., St. Mary Abbots, £540 12*s.* 3*d.*; Christ Church, £100 16*s.* 4*d.*; and St. Paul's, Vicarage Gate, £117 5*s.* 4*d.*; St. Nicholas parish church, Chislehurst, with St. John the Baptist, £265; St. John, Paddington, £195; St. Paul, Avenue-road, £145; St. Paul, Beckenham, £140; and Lincoln's Inn Chapel, £105. The total now exceeds £61,000.

Dr. A. C. Houston has been appointed Director of Water Examinations, Metropolitan Water Board, at a salary of £1000 per annum.

[1] THE LANCET, April 15th, 1905, p. 1013.

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

THE QUATER-CENTENARY CELEBRATIONS.

THE Royal College of Surgeons of Edinburgh began the celebration of its quater-centenary on Wednesday evening, July 19th, by a formal reception of its guests at its home in Surgeons' Hall. The more public part of the celebrations began on Thursday morning and were continued without much interval until early on Saturday forenoon. The weather fortunately was very fine and contributed not a little to the success of the series of entertainments organised in honour of the occasion.

The opening public ceremony was a service in the old Cathedral of St. Giles. The College authorities had fortunately obtained permission to use part of the hall of Parliament House as a meeting place and there their distinguished visitors, representatives of many local bodies, of learned societies, and of the medical press met, and being carefully marshalled walked in procession across Parliament House-square to the west entrance of the cathedral from which point, passing up the central aisle, they reached their seats in the choir. Academic costume or uniform was worn. An elaborate attention to detail, due to the younger Fellows of the College under the direction of Mr. J. W. Dowden, the special secretary for the occasion, characterised all the functions and gave a smoothness and finish to them worthy of the masters of the ancient craft and pleasant to those who had the privilege of participating in them. The service in the cathedral consisted of a specially printed liturgy, the prayers having particular bearing upon the occasion. They were read by the Very Rev. Dr. Cameron Lees, Minister of St. Giles and Dean of the Chapel Royal of Scotland. The sermon was preached by the Rev. Dr. William P. Paterson, Professor of Divinity in the University. He took as his text St. John ix. 1–3: "And as Jesus passed by, he saw a man which was blind from his birth. And his disciples asked him, saying, Master, who did sin, this man, or his parents, that he was born blind? Jesus answered, Neither hath this man sinned, nor his parents: but that the works of God should be made manifest in him." The preacher at the outset referred to the old connexion between the Incorporation of Barber-Surgeons and St. Giles's, the Incorporation in the early days maintaining an altar in St. Giles's dedicated to God and to their patron saint St. Mungo. He thought that apart from this there was sufficient reason that the intimate relations between the healing art and the Christian Church should be prominently recognised at such a celebration as the present. It was true, he said, that at certain periods the Church attempted to obstruct the march of science along particular lines and retarded to some extent the development of a rational system of medicine, but as an offset to that it was to be remembered that amid the shocks and losses of mediæval times it was the Church which was the chief custodian of the scientific legacy from antiquity which saved the world from intellectual bankruptcy, while the enthusiasm of humanity which had supplied the moral dynamic of the medical profession in the modern western world had been chiefly engendered by the religion which adored in a good physician God manifest in the flesh and which proclaimed the infinite value of every human being as made in the image of the Eternal God. The preacher then proceeded to examine the problem of human suffering and to contrast the old-world idea that it was to be explained on a penal principle with the Christian view

laid down in the text, that a world of disease was a world of divine opportunity. The remarkable saying of Christ found its most obvious illustration in the rise and progress of medicine and surgery. A grim necessity, as Hippocrates put it, was the mother of the healing art. The universal and unceasing distress was an imperious summons to thought and action and in responding to it the human mind found a field in which it discovered and matured its latent powers and also entered upon a course of brilliant and beneficent discovery. The preacher at considerable length then traced the development of the healing art and showed how pure science became in the first place a by-product of practical medicine until knowledge came to be sought for its own sake.

After the service in St. Giles's Cathedral a luncheon was given by the Lord Provost, magistrates, and town council in the City Chambers. The company numbered about 100 and consisted of members of the town council, prominent Fellows of the Royal College of Surgeons of Edinburgh, and all the distinguished guests of the College. The toast of "The Royal College of Surgeons of Edinburgh" was proposed by Sir ROBERT CRANSTON, the Lord Provost, in felicitous terms, and was briefly replied to by the PRESIDENT, Sir PATRICK HERON WATSON.

The great event—the commemoration ceremonial—was held in the afternoon in the McEwan Hall. The area of the hall, the seats in which were all numbered, was reserved to the left of the chair for the Fellows of the College, and to the right of the chair for representatives of other colleges, of various universities, and other learned bodies. Academic costume was worn. The platform and two or three rows of seats in the area were reserved for special persons, including those upon whom the honorary Fellowship was to be conferred and who at the appointed hour entered the hall in procession, the President of the College, with the mace-bearer, leading, followed by the Lord Provost. The raised area and the galleries were occupied largely by ladies. When all had taken their places the aspect of the hall was very striking and effective, the weather favouring the scene and the ladies being in the brightest of summer attire.

The PRESIDENT then rose and delivered a short address of welcome in which he dwelt on the ancient history of the College. The origin of the Royal College of Surgeons of Edinburgh as a corporate body, he said, must be traced back to the reign of James IV. of Scotland. He it was who, on Oct. 13th, 1506, confirmed by Royal Charter the "Seill of Cause" which a year previously, in July, 1505, had been granted to the barber-surgeons resident within the burgh of Edinburgh by the provost, bailies, and council of the burgh. There is, however, reason to believe that even prior to this date an organised body of practitioners had already existed in Edinburgh to whose laudable desire for an accredited position and for authority to practise and to teach the College is indebted for its inception. This body by its energy and indomitable perseverance met and overcame the difficulties which stood in its way; and on recalling to mind the comparatively barbarous condition of the country at that time, and the terrible strife by which it was torn, it is impossible to do otherwise than to regard with admiration and with respect the work which these men were able to accomplish as pioneers of a great cause. At this period Scotland appears to have been placed at a serious disadvantage owing to the early age at which its sovereigns were called upon to ascend the throne. James III. of Scotland, the father of the founder of the College, was but a boy of eight when called upon to occupy this difficult position by the death of his father—James II. The haughty Scottish nobility were incapable of appreciating the King's devotion to intellectual pursuits and great dispeace was thus created which ended in rebellion and, finally, in the death of James at Sauchie in 1488. On the accession of his son, King James IV., the rebellion was subdued and a period of comparative peace was entered upon. King James IV. is described as having been a man of polished and agreeable address, with qualities of mind as outstanding as those of his bearing, while his knowledge of languages appears to have been of a high order, for he spoke, in addition to his own tongue, fluent French, German, Flemish, Italian, and Spanish, and had a good knowledge of the Latin classics. In character he was neither prodigal nor avaricious but liberal when occasion required and he was courageous to the point of rashness. This was the Prince who, by his enlightened qualities of mind, was led to confirm by Royal Charter in 1506 the establishment of the College of Surgeons of Edinburgh. He is said to have made it his special care to provide for the health and the well being of his army by supplying it with surgical aid and it is conceivable that in granting official recognition to the College by the bestowal of a Royal Charter he had before him the possible realisation of this great-minded purpose. The President concluded an eloquent address by first referring all interested in the past of the College to Dr. John Smith's admirable treatise upon its history and then by expressing the deep sense of regret that all Scots must feel at the loss of the late Principal of the University, Sir William Muir.

At the close of the address the secretary, Dr. Francis Cadell, constituted the meeting of the College by reading the following prayer, which is traditionally understood to have been framed by John Knox: "O eternal God, our loving and merciful Father in Christ Jesus—Seeing we are convened to treat of those things which concern our calling, we beseech Thee, O Lord, to be merciful to us and give us grace to proceed therein without malice, grudge, or partiality; so that the things we do may tend to the glory of God, the weal of our vocation, and the comfort of every member of it; through Jesus Christ our only Lord and Saviour. Amen."

The conferring of thle honorary Fellowship was then proceeded with. Sir Hatliday Croom, Vice-President of the College, acted as promoer, introducing each of the distinguished men upon whom the College had decided to confer this honour and passing on each a short and pithy eulogy. All the names were received with applause, while the whole audience rose to their feet in honour of Lord Lister who was absent. After this most interesting part of the ceremonial some words of thanks and of appreciation were said by the various recipients of the honour who were present. This part of the proceedings had also been well organised, for the words of thanks were as brief and as pointed as were the promoter's. Following are names of those on whom was conferred the honorary Fellowship of the College:—

AUSTRIA.

VON EISELSBERG, ANTON FREIHERR, M.D., Professor of Surgery, University of Vienna.

(*In absentiâ*) FUCHS, ERNST, M.D., Professor of Ophthalmology; Director of the First Division for Eye Diseases in the Allgemeines Krankenhaus, Vienna.

DENMARK.

SAXTORPH, SYLVESTER, M.D., Professor of Clinical Surgery, University of Copenhagen; Surgeon to the Kommune Hospital; Knight of the Order of Dannebrog; formerly Surgeon to His Majesty the King of Denmark.

FRANCE.

(*In absentiâ*) GUYON, FELIX, M.D., Professor in the Faculty of Medicine, Paris; Surgeon to the Necker Hospital; Member of the Institute; Member of the Academy of Medicine.

LUCAS-CHAMPIONNIÈRE, JULES, M.D., Professor of Surgery in the Faculty of Medicine, Paris; Member of the Academy of Medicine.

(*In absentiâ*) PONCET, A., M.D., Professor of Surgery in the Faculty of Medicine, Lyons; Corresponding Member of the Academy of Medicine; formerly Surgeon-in-Chief to the Hôtel-Dieu, Lyons.

SEGOND, PAUL, M.D., Professor of Gynæcology in the Faculty of Medicine, Paris; Surgeon to the Salpêtrière Hospital.

(*In absentiâ*) TERRIER, LOUIS FÉLIX, M.D., Professor of Surgery in the Faculty of Medicine, Paris; Surgeon to the Hôpital de la Pitié; Member of the Academy of Medicine.

GERMANY.

(*In absentiâ*) VON BERGMANN, S. ERC. ERNST, M.D., F.R.C.S. Eng. (*Hon.*), Professor of Surgery, University of Berlin; Royal Prussian Medical Privy Councillor; Imperial Russian Actual Councillor of State; Knight of the Prussian Order of Hohenzollern, the Prussian Krun and Red Eagle Orders; Knight Grand Cross (with Diamonds), Imperial Russian Orders of the Holy Anne, of the Holy Stanislas, and the Holy Vladimir; General-Arzt of the Prussian Army, with the rank of Major-General.

BIER, AUGUST, M.D., Professor of Surgery, University of Bonn; formerly Professor of Surgery in Greifswald.

(*In absentiâ*) CZERNY, VINCENZ, M.D., Professor of Surgery, University of Heidelberg.

(*In absentiâ*) KÖNIG, FRANZ, M.D., F.R.C.S. Eng. (*Hon.*), Professor of Surgery; Director of Clinical Surgery at the Charité Hospital, Berlin; General Arzt à la suite of the Army Medical Corps.

(*Sent to relatives*) VON MIKULICZ-RADECKI, JOHANNES, LL.D. Edin., Glasg., and Phila., General Arzt à la suite of the Medical Corps of the Royal Prussian Army; Professor of Surgery and Director of the Surgical Clinic, University of Breslau. *Died June 17th, 1905.*

ITALY.

DURANTE, FRANCESCO, M.D., F.R.C.S. Eng. (*Hon.*), Senator; Professor of Clinical Surgery, Royal University of Rome; Knight of the Most Distinguished Order of the "Merito Civile di Savoia"; Knight Grand Cross of the "Corona d'Italia."

JAPAN.

(*In absentiâ*) SAWAYOSHI, BARON YASUSUMI, Director-General of the Medical Department, Imperial Japanese Navy.

RUSSIA.

(*In absentiâ*) SUBBOTIN, MAXIM SEMENOVIC, Chief of the Surgical Clinic, Military Hospital, Imperial Academy of Medicine, St. Petersburg.

SWEDEN.

LENNANDER, KARL GUSTAV, M.D., F.R.C.S. Eng. (*Hon.*), Professor of Surgery and Obstetrics, University of Upsala.

SWITZERLAND.

(*In absentiâ*) KRÖNLEIN, ULRICH, M.D., Professor of Surgery, University of Zürich.

UNITED STATES OF AMERICA.

HALSTED, WILLIAM STEWART, M.D., F.R.C.S. Eng. (*Hon.*), Professor of Surgery, Johns Hopkins University, and Surgeon to the Johns Hopkins Hospital, Baltimore.

KEEN, WILLIAM WILLIAMS, A.M., M.D., LL.D., F.R.C.S. Eng. (*Hon.*), Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College; Surgeon to the Jefferson Medical College Hospital, Philadelphia.

KELLY, HOWARD A., A.B., M.D., Professor of Gynæcology and Obstetrics, Johns Hopkins University; Gynæcologist and Obstetrician, Johns Hopkins Hospital, Baltimore; Corresponding Member of the Société Obstétricale et Gynécologique of Paris and of the Gesellschaft für Geburtshülfe of Leipsic.

(*In absentiâ*) MAYO, WILLIAM J., M.D., Surgeon to St. Mary's Hospital, Rochester, Minnesota.

(*In absentiâ*) WARREN, JOHN COLLINS, M.D., LL.D., F.R.C.S. Eng. (*Hon.*), Professor of Surgery, Harvard University; Surgeon to the Massachusetts General Hospital.

BRITAIN.

(*In absentiâ*) BOMFORD, Lieutenant-Colonel GERALD, M.D., C.I.E., Director-General of the Indian Medical Service.

CAMERON, IRVING HOWARD, M.B., F.R.C.S. Eng. (*Hon.*), Professor of Surgery and Clinical Surgery, University of Toronto; Surgeon to the Toronto General Hospital.

CHANCE, ARTHUR, President of the Royal College of Surgeons in Ireland; Surgeon to the Mater Misericordiæ Hospital and to the Dublin Orthopædic Hospital; Consulting Surgeon to St. Michael's Hospital; President of the Surgical Section of the Royal Academy of Medicine, Ireland.

CLARK, HENRY EDWARD, C.M.G., President of the Faculty of Physicians and Surgeons of Glasgow; Professor of Surgery, St. Mungo's College, Glasgow; Surgeon to the Glasgow Royal Infirmary; Honorary Associate of the Order of St. John of Jerusalem.

ELLIS, HERBERT MACKAY, Director-General of the Royal Navy Medical Service.

(*In absentiâ*) FITZGERALD, Sir THOMAS NAGHTEN, C.B., M.D., Honorary Surgeon, Melbourne Hospital; Consulting Surgeon, St. Vincent Hospital, Melbourne; Ex-President, Inter-Colonial Medical Congress of Australasia; President of the Medical Society of Victoria.

KNOX, ALFRED HENRY, C.B., M.D., Director-General of the Army Medical Service.

(*In absentiâ*) Lord LISTER, F.R.S., D.C.L., LL.D., Serjeant-Surgeon to His Majesty the King.

(*In absentiâ*) MACCORMICK, ALEXANDER, M.D., Lecturer on Surgery in the University of Sydney; Surgeon to the Prince Alfred Hospital, Sydney; Member of the Royal Society of New South Wales.

PLAYFAIR, JOHN, M.D., President of the Royal College of Physicians of Edinburgh; formerly Physician to the Royal Hospital for Sick Children, Edinburgh.

TWEEDY, JOHN, President of the Royal College of Surgeons of England; Emeritus Professor of Ophthalmology, University College; Consulting Ophthalmic Surgeon, University College Hospital; Consulting Surgeon, Royal London Ophthalmic Hospital; President of the Ophthalmological Society, London.

SHEPHERD, FRANK J., M.D., Professor of Anatomy in M'Gill University, Montreal; Lecturer in Operative Surgery.

(*In absentiâ*) M BURNEY, CHARLES, M.D., Professor of Clinical Surgery, Columbia University; Consulting Surgeon to the New York Hospital.

Thereafter congratulatory addresses were presented by the following bodies:—

The University of St. Andrews.—By the Dean of the Faculty of Medicine (Professor REID) and the Principal of University College, Dundee (Professor YULE MACKAY).

The University of Glasgow.—By the Dean of the Faculty of Medicine (Professor MURDOCH CAMERON).

The University of Aberdeen.—By the Dean of the Faculty of Medicine (Professor R. W. REID).

The University of Edinburgh.—By the Principal (Sir WILLIAM TURNER, K.C.B.).

The Royal College of Surgeons of England.—By the President (Mr. JOHN TWEEDY).

The Royal College of Surgeons in Ireland.—By the President (Mr. ARTHUR CHANCE).

The Royal College of Physicians of Edinburgh.—By the President (Dr. PLAYFAIR) and the Treasurer (Dr. P. A. YOUNG).

The Faculty of Physicians and Surgeons of Glasgow.—By the President (Professor H. E. CLARK).

The Royal Society of Edinburgh.—By the Senior Vice-President (Professor GEIKIE).

The Edinburgh Medico-Chirurgical Society.—By the President (Professor CHIENE, C.B.).

The Edinburgh Obstetrical Society.—By the President (Dr. N. T. BREWIS).

The Royal Medical Society.—By the President (Dr. R. J. JOHNSTON).

The Merchant Company of Edinburgh.—By the Master (Mr. JOHN HARRISON).

The Managers of the Royal Infirmary of Edinburgh.—By the Chairman (the LORD PROVOST).

Some of the earlier presented addresses were read but the others were merely handed to the President. This very interesting ceremonial, which passed off without any hitch worthy of remark, was concluded by the singing of the National Anthem accompanied by the organ.

The dinner hours were monopolised by the Fellows of the College in dispensing the most liberal hospitality to friends from the city and the country, as well as to their guests from England, America, and the various countries of Europe. At half-past nine a reception was held by the President and Fellows of the College in the Royal Scottish Museum, at which there were some thousands of guests, the scene being a bright and gay one.

Friday forenoon was free of public function but in the early afternoon the Royal College of Physicians gave a luncheon in the hall of its College in honour of the sister College and of the distinguished guests. The chair was occupied by the President of the College, Dr. John Playfair, and there was a large party of Fellows and guests. The afternoon was devoted to a garden party given by the President and Fellows of the Royal College of Surgeons in the grounds of George Heriot's Hospital. The hospital, which is situated opposite the Royal Infirmary, is one of the finest specimens of Tudor architecture extant and was thrown open to the guests. The grounds are large, the day was bright and warm, and the scene was gay and animated.

In the evening a grand banquet was held in the Music Hall, to which about 350 sat down. The President was supported to right and left by the Lord Provost of Edinburgh, by the French Ambassador, M. Cambon, and other prominent officials and distinguished guests. The hall was beautifully decorated for the occasion and the banquet itself was of a choice description. The loyal and patriotic toasts were proposed in a few words by the PRESIDENT; then the VICE-PRESIDENT proposed "The Lord Provost and Magistrates of the City of Edinburgh," which was responded to by the LORD PROVOST. In both speeches the old relations between the town council and the ancient craft were referred to. "The Honorary Fellows of the College" was then proposed by the PRESIDENT in a few appropriate sentences and was received with much enthusiasm, the company singing "For they are jolly good fellows." Professor Freiherr VON EISELSBERG and Dr. HALSTED replied for the honorary Fellows, the former speaking of Simpson and of Lister, and the latter of the hospitality which had been lavishly bestowed upon them.

The toast of "The Guests" was in the hands of Principal Sir WILLIAM TURNER who in carefully measured terms and eloquent manner spoke of the origin of medical guilds and corporations from the private working of members of the profession and not from the State, for it was found that men could work better in combination than as isolated units. As the outcome of these combinations there emerged a system of medical education, gradually perfecting itself throughout the generations, a method of testing the system of education by examination, and, what he thought was of more importance within the profession even than these matters, a sentiment of professional honour—a code of conduct which should regulate the action of medical men towards each other and towards the great public with which they were so intimately associated. Many of the guests recognised the value of that corporate combination. Their guests from the continent, however, had come there because they remembered that they were all members of a common profession whose function it was to probe into the causes of disease, to do what seemed to them to be the best to get rid of the causes of disease, and to put the practice of medicine on a wide and proper footing. It was not one country that did that, it was by a combination of all the countries where medical science was practised, and he illustrated this by reference to Pasteur, Lister, and Koch. He ventured to think that there was a wider significance in their meeting that evening. It was more than a mere professional gathering for they were honoured with the presence of the Ambassador for the great Republic of France. Sir William Turner referred in glowing terms to the old connexion of Scotland with France, the greatness of France and of the French people, and hoped that brotherly love between the two peoples might ever prevail. That this admirable speech, every syllable of which was heard in every part of the hall, had express d the sentiments of the whole company was shown by the shouts of applause with which it was received. When M. CAMBON rose to reply the whole company rose and gave him an ovation which could not be surpassed in its evident spontaneity and the warmth of its expression. M. Cambon must have felt that the *entente cordiale* had a deeper foundation than mere statecraft or diplomatic understanding.

The last toast on the list was in the name of Sir JOHN URE PRIMROSE, the Lord Provost of Glasgow, and "The Royal College of Surgeons of Edinburgh" could not

have been in more capable hands. After referring to the 400 years during which the College had existed as full of momentous issues for Scotland, for Britain, and for the world, he proceeded to pass a high eulogy upon the profession of medicine and surgery. He said that, as one who had participated in civic administration and had felt that underlying it was the doctrine of making this world brighter, happier, wholesome, and a more desirable dwelling place for the human unit, and as one who had loyally held to that doctrine, what a debt of gratitude they owed to the medical profession in all its branches. He expressed, also, great faith in the future of medicine, for he believed that the most eminent men in that assembly would confess that as yet they stood on the threshold of the investigation of causation and cure, and the mind that assumed that attitude, with lowliness and meekness, but with sincerity, was the truest and most possible force in future achievements. He believed that for years to come from the ranks of a college such as this, and inspired by the traditions of a college such as this, many men would rise to confer benefits on their fellows that would justly entitle their fellows to call them blessed. This toast was briefly responded to by the PRESIDENT who acknowledged the high conception formed by the proposer of the toast of the duties of the medical man. Thereafter the company joined in singing the National Anthem, followed by "Auld Lang Syne."

This brought to a close the official programme of the College and it only remains to compliment those concerned upon the administrative faculty shown by the celebration secretary, Mr. John W. Dowden, F.R.C.S. Edin., and the group of younger surgeons upon whom much of the labour of the arrangements necessarily fell, and to congratulate the President and the Fellows of the College on the manner in which all the proceedings were carried through and upon the public interest shown in the College.

On Saturday the University of Edinburgh held a special graduation ceremonial with the object of conferring the honorary degree of Doctor of Laws upon the foreign, American, and colonial guests of the Royal College of Surgeons. The following were thus honoured:—The French Ambassador, His Excellency M. Paul Cambon; Professor Irving Howard Cameron, Dr. Just Lucas-Championnière, Professor Francesco Durante, Professor Anton Freiherr von Eiselsberg, Professor William Stewart Halsted, Professor William Williams Keen, Professor Karl Gustav Lennander, Professor Saxtorph, and Professor F. J. Shepherd.

Principal Sir WILLIAM TURNER, at the close of the capping ceremonial, said it was not customary to have replies from the recipients of the honour but as this was a special occasion he thought it would be gratifying to the Senatus and to many of the friends assembled if he requested the French Ambassador to speak a few words on behalf of the European honorary graduates and Dr. Keen on behalf of those who came from the other side of the Atlantic.

M. CAMBON, speaking in French, made complimentary reference to the honour which the University had conferred upon him and proceeded to speak of the illustrious position of the University of Edinburgh and of the traditional friendship between France and Scotland and of the pleasure that it had given him to visit Edinburgh.

Dr. KEEN said that he and his transatlantic brethren came to Edinburgh as their academic Jerusalem—beautiful for situation, the pride of the whole earth. They were not strangers. They had been encompassed with kindness and they had not only been "capped" but "captured."

The proceedings concluded with the benediction.

THE PROPOSED AMALGAMATION OF THE LONDON MEDICAL SOCIETIES.

THE following is the report of the executive committee to the committee composed of representatives of the societies, which was accepted by the committee on Wednesday, July 19th. We deal with it in a leading article this week:—

Your committee beg to report that in accordance with their powers they coöpted Mr. Makins and appointed Dr. Arthur Latham and Mr. Herbert S. Pendlebury to act as honorary secretaries.

We instructed Messrs. Newson-Smith, Lord, and Mundy, chartered accountants, to investigate the rolls of membership and the accounts of the following societies:—Medical; Royal Medical and Chirurgical; Pathological; Clinical; Obstetrical; Gynæcological; Neurological; Epidemiological; Medico-Psychological; Ophthalmological; Laryngological; Laryngological-Otological-Rhinological Association; Otological; Dermatological of London; Dermatological of Great Britain and Ireland; Society for the Study of Diseases of Children; Odontological; Association of Medical Officers of Insurance Companies; Balneological; Society of Anæsthetists; Electro-Therapeutic; Therapeutic.

The accountants inform us that the 22 societies whose membership lists were collated have a total membership of 7229, constituted by 4957 persons. Of these, 3725 are members of one society only, and the balance, 1272, are members of more than one society.

The accountants, upon the figures placed before them by the societies, further inform us that the balance of assets (including certain bequests and trust funds) over liabilities of these societies is more than £40,000. If 3800 members of societies other than the Royal Medical and Chirurgical Society become members at a subscription of £1 1s. per annum the new society will have a small balance of income over expenditure. If any members of these societies become Fellows at a subscription of £3 3s. per annum the balance will be proportionately increased. This estimate is based on the present income and expenditure of the Royal Medical and Chirurgical Society, together with the present income and expenditure of 17 other societies, as given in subjoined table, and makes no allowance for any economies which may be effected by the union.

Estimate of Income and Expenditure of the proposed Royal Society if housed at 20, Hanover-square, on Basis of Income and Expenditure of existing 18 Societies for the Year ending Dec. 31st, 1904.

EXPENDITURE.		INCOME.	
Royal Medical and Chirurgical Society	£4,307	Royal Medical and Chirurgical Society	£4,911
Loss of rent by union ...	770	*Of other 17 Societies.*	
Of other 17 Societies.		Rent of Medical Society...	940
"Transactions," less sales but without allowance for income by advertisements	2,545	Investments...	350
Staff	650	Interest from investment of present cash balance	50
Library and Museum ...	166	Entrance fees	186
Interest on obligation ...	121	3800 subscriptions at £1 1s.	3,990*
Stationery, miscellaneous and exceptional expenditure	1,670		
Balance	198		
	£10,427		£10,427

* The actual amount received last year from subscriptions by these 17 societies was £5033.

In view of the facts that 3525 persons already subscribe £1 1s. to these 18 societies per annum, that 1272 pay from £2 2s. upwards, and that under the proposed scheme many individuals who are not Fellows of the Royal Medical and Chirurgical Society would become Fellows of the Royal Society of Medicine at an annual subscription of £3 3s., your committee consider that the new society would have a sufficient balance of income over expenditure to provide for improvements and for any sinking fund rendered necessary by extensions to 20, Hanover-square, supposing that all the scheduled societies joined.

This is shown more clearly from the following estimate of subscriptions which may be received from members of the various societies who are not Fellows of the Royal Medical and Chirurgical Society:—

	£
600 members of societies as Fellows at £3 3s. ...	1890[1]
3300 members at £1 1s....	3360
Library subscriptions at £1 1s., say	525
	£5775

If this £5775 replaces the conservative estimate of £3990 from subscriptions in the foregoing estimate of income and expenditure, the estimated annual balance of £198 becomes £1983. We cannot obtain further information as to the financial practicability of the scheme until we know exactly which societies have definitely decided to join the proposed Royal Society.

Your committee suggest that every member of the societies which shall amalgamate shall have the option of joining the new society without entrance fee and that as far as possible the members of these societies shall retain their present privileges in the new society. For example, any Fellow of the Royal Medical and Chirurgical Society who has compounded for his subscription will be entitled to join the Royal Society of Medicine as a Fellow without further payment of any kind and a member of any society who has compounded for his subscription will be entitled to join the corresponding section of the Royal Society of Medicine without further payment.

Your committee consider that the following suggestions might be embodied in a scheme for the formation of the new society, namely, that—

1. The new society shall be called the Royal Society of Medicine, or the Royal Academy of Medicine, according to the vote of the societies concerned.

2. All moneys, books, premises, and other properties belonging to any of the societies which join the proposed union shall become the property of the new society.

[1] This figure 600 is arrived at as follows: 1272 members belong to two or more societies; the figures, taking 1300 instead of 1272, show that—

751	members	belong to	two societies
300	,,	,,	three ,,
134	,,	,,	four ,,
72	,,	,,	five ,,
31	,,	,,	six ,,
5	,,	,,	seven ,,
6	,,	,,	eight ,,
1	,,	,,	nine ,,

The number of Fellows of the Royal Medical and Chirurgical Society paying an annual subscription of £3 3s. is 420 (many of these probably belong to no other society), but if we deduct their entire number from 1272 there are at least 850 individuals who belong to two or more societies. The committee suggest that probably 600 of these would become Fellows of the new society at an annual subscription of £3 3s.

3. The society shall be housed at 20, Hanover-square. Increased accommodation, if required, can be obtained by extending the premises and by the absorption of certain rooms now occupied by tenants of the Royal Medical and Chirurgical Society.

4. The society shall meet four or more times a year to discuss subjects of medical and scientific interest.

5. The society shall consist of the following sections, with power to add new sections or to modify existing ones with the consent of the members: (1) Anæsthetic; (2) Clinical; (3) Dermatological; (4) Diseases of Children; (5) Epidemiological; (6) Laryngological, Otological, and Rhinological; (7) Medical; (8) Mental Medicine (Psychiatry); (9) Neurological; (10) Obstetrical and Gynæcological; (11) Odontological; (12) Ophthalmological; (13) Pathological; (14) State Medicine; (15) Surgical; (16) Therapeutical, including General Therapeutics, Pharmacology, Electro-therapeutics, Balneology, and Climatology. It is hoped that in the early future an anatomical and physiological section may be formed.

6. The society shall consist of Fellows, Members, Honorary Fellows, and Honorary Members.

7. The Fellowship of the society shall be restricted to those who are registered medical practitioners of the British Empire and to men whose scientific attainments are satisfactory to the general council.

8. A Fellow shall pay, subject to any future by-law, an annual subscription of £3 3s., and shall have the right to attend all meetings of the society or of any of its sections, and shall have full use of the library. After the society is constituted (i.e., after a date to be subsequently determined) a new Fellow shall pay an entrance fee of £2 2s.

9. Each section shall have the power to elect as members of the society such persons as the council of the section may think fit, provided that the names of the candidates proposed for election be previously submitted by the sectional council to the council of the society for their approval.

10. A member of any particular section shall pay, subject to any future by-law, £1 1s. per annum, and shall have the right to attend all the meetings of his section, but must pay an additional £1 1s. per annum if he wishes to have the use of the library, and a further subscription of 10s. 6d. per annum for each additional section.

11. The general management of the society shall be under the control of a general council, consisting of the president, the presidents of the various sections, two treasurers, two librarians, two secretaries, and eight other Fellows.

12. The entire management of the funds of the society shall be in the hands of a finance committee, subject to and acting as a sub-committee of the general council.

13. In order to enable existing societies to retain their individuality as far as possible each section shall have power to make the necessary laws and regulations for the conduct of its business.

14. The presidents of sections shall be *ex officio* vice-presidents of the society, and shall serve on the general council of the society.

15. In the estimate provision has been made for a monthly publication (July, August, and September excepted), to be called "The Proceedings of the Royal Society of Medicine." This publication will be under the control of an editorial committee, and will contain a record of the work of each section during the previous month. By such prompt publication the value of the records will be greatly increased. In addition, the committee will select, subject to the approval of the general council, such papers as they may consider worthy of publication in the "Transactions" of the society.

The committee further suggest that it would be to the advantage of the Royal Society if a committee were formed of representatives of the various sections, charged with the duty of receiving all papers to be read before the society or its sections. This committee should have power to decide before which section any given paper should be read, and to decide whether other sections or the whole society should be asked to join in the discussion. Authors of papers should have the privilege of suggesting the section or sections before which they wished to read their papers.

It is hoped greatly to increase the value of the present library at 20, Hanover-square, and to provide an additional reading-room for the use of Fellows and members.

Your committee ask the various societies concerned to consider the scheme submitted at an early date and to inform the honorary secretaries of their views. As soon as the committee is in possession of these views further steps can be taken.

In conclusion, your committee beg to express the unanimous opinion that the union of medical societies will do much to enhance the prestige of British medicine, that it will increase the value of the work at present carried out by existing societies, and that it will be to the great convenience of the medical profession.

(Signed) W. S. CHURCH, Chairman.
R. DOUGLAS POWELL.
HENRY HEAD.
JOHN LANGTON.
DAVID H. GOODSALL.
G. H. MAKINS.
CHARTERS J. SYMONDS.
ARTHUR LATHAM, } Honorary
HERBERT S. PENDLEBURY, } Secretaries.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE annual meeting of this association was held at the Medical Society's rooms, Chandos-street, London, W., on July 20th and 21st.

On the opening day the chair was occupied during the earlier portion of the meeting by the President, Dr. R. PERCY SMITH, and after the purely business portion had been transacted by the new President, Dr. T. OUTTERSON WOOD. There was a very large attendance of members from all parts of the kingdom. Dr. Percy Smith was heartily thanked for his services as president during the year. Dr. Wood, on taking the chair, was cordially received.

In his Presidential Address Dr. WOOD sympathetically referred to the death of the late Sir John Sibbald and proceeded to compare the position of the association with that of 25 years ago. In 1880 there were 394 members and to-day there were 680. The success of the association had been much helped by the formation of subdivisions. He proceeded to call attention to the responsibility resting upon medical men in prescribing powerful drugs and the ease with which patients could obtain them in unlimited quantity by taking the prescription from one druggist to another. Such poisons had been used for committing suicide. On the question of incipient insanity he referred to the action of the association in recommending that a patient whose insanity was doubtful should be placed under care and treatment away from home on the application of a relative to a magistrate, which action was supported by the British Medical Association. He then alluded to the abuse of the practice of "single care" by advertisers who had no knowledge of the treatment of the insane. He advocated as a remedy the registration of places and persons taking mental cases, especially including the so-called "nursing homes." The President also touched upon the question of voluntary boarders in public asylums and said that there was a field for extension in the direction of encouraging the early treatment of incipient insanity. The address dealt very fully with the question of nursing the mentally afflicted. There were now 6900 nurses, male and female, holding the association's certificate for proficiency, probably the largest number of any organisation in the nursing world holding certificates of uniform value from one constituted authority. Last year the period of training was definitely fixed at three years, which would give the association's nurses a status that they had never before enjoyed. He objected to referring to male nurses in asylums as "attendants," and much preferred the term "nurse" for both sexes. Some members had advocated the principle of substituting female nurses for male to look after male patients, but he thought the proportion of suitable cases for that could not be large. A temperate letter appeared in the *Asylum News* from a matron, stating that a kind heart, common sense, devotion to duty, and loyalty to proper authorities were not the sole prerogatives of women and that a man with those qualities could nurse insane men as well as, and with greater propriety than, any woman. The President called special attention to the importance, in the case of a nurse, of a good personal character and individual fitness for the work, and if the association would be prepared to take one more step towards bringing its nurses into line with the members of the Royal British Nurses' Association and the Midwives Board a registration board might be established which could make it compulsory for each nurse to qualify for the certificate. He was not sure that all the stir now being made about State registration would be of much material benefit to the nurses themselves, nor that the perking them up with a glistering pride might not end in their wearing a crown of sorrow. Whatever might be the outcome of the movement in regard to the State registration of nurses, he doubted if any scheme could improve upon the excellent system of the Royal British Nurses' Association under the presidency of Her Royal Highness the Princess Christian, to whom the association was largely indebted for the interest which she took in the status of asylum-trained nurses. In conclusion, the President declared that psychological medicine was now more intimately associated with general medicine than formerly, and he trusted that it would continue to be the object of the association to strengthen the bonds which united them and which he believed would ere long bring them into one harmonious whole.

Dr. GEORGE M. ROBERTSON, medical superintendent of the Stirling District Asylum at Larbert, Stirlingshire, introduced for discussion the question of the Employment of Female Nurses for the Care of Insane Men. He argued that nursing was better done by women and that they were more tidy, bright, genial to patients, and looked better after the cleanliness of bedding and linen than did male nurses. Patients also were more amenable to tactful management by them, but he thought that cases of delirium tremens, acute mania, and dangerous suicidal tendency were best placed in the care of male nurses. As a system the female nursing of male patients, he argued, was to be encouraged. In Scotland it was tried and found to be successful and the Scottish

Commissioners in Lunacy spoke of it in high terms.—In the discussion which followed Dr. ROBERT JONES, medical superintendent of Claybury Asylum, referred to the economic aspect of the question. He thought that the matron should not be loaded with the responsibility of having the charge of male patients.—Mr. JOHN F. BRISCOE criticised Dr. Robertson's statements and conclusions as somewhat one-sided. Those types of insanity, he argued, which tended nowadays to be of the quiet type (demented or depressive), and easy to manage, might be nursed by women but the majority of men required male nursing.—Another speaker said that they could do with female nurses in easy cases but in certain specially difficult male cases (epileptics, maniacs) they could not do without male nurses.—Dr. DAVID THOMPSON, medical superintendent of the Norfolk County Asylum, preferred the male nursing of patients. He found male nurses quite as good as, and even better than, female nurses both in his own asylum and at asylums at the Hague and elsewhere on the continent. Nursing, like cooking and dressmaking, was not the exclusive province of the female sex, and when good male nurses were met with they surpassed the women as men also did in cooking and dressmaking. In cases of delirium tremens male nurses were a *sine qua non*.—Dr. C. HUBERT BOND of the Ewell Colony for Epileptics found female nursing suitable in the case of his patients, whether male or female.—Dr. BEDFORD PIERCE said that they should not ignore the fatherly instinct of man which made him as good and tender a nurse as the motherly instinct of woman constituted her a nurse. He thought that Dr. Robertson's observations were fallacious and did injustice to the class of male nurses.—Dr. G. E. SHUTTLEWORTH said that if the plan of female nursing as advocated by Dr. Robertson were carried out to its logical limit it would produce a mere "bread-and-cheese class of nurses."—The PRESIDENT, in summing up the discussion, said that male nurses were in certain circumstances more proper than females in the nursing of male cases; female nursing had also its acknowledged merits, but if it was pushed too far it would diminish the goodness of a good work.

On July 21st, in view of the introduction of two Lunacy Bills before Parliament (now withrawn) the treatment of insanity and the proper accommodation to be provided, especially for early mental disorders, was the first subject of discussion of the day. In introducing the subject the PRESIDENT referred to the two Bills in question—namely, (1) a Bill to Amend the Lunacy Acts, printed on April 17th, 1905, presented to the House of Commons by the Attorney-General and supported by the Solicitor-General; and (2) a Lunacy Acts Amendment Bill to authorise the London County Council to provide receiving houses for the reception of persons mentally afflicted or alleged to be of unsound mind and to authorise the detention of such persons in such houses and for other purposes connected therewith. This Bill was presented to the House by Sir John Batty Tuke, and supported by Mr. John Burns, Mr. Williams Benn, Mr. Claude Hay, and others. The technical provisions of the Bills and the bearings thereof on lunacy practice were discussed by several members present.

As germane to this discussion Dr. HELEN BOYLE, late assistant medical officer at Claybury Asylum, read a paper upon Some Points in the Early Treatment of Mental and Nervous Cases, with special reference to the Poor.

Dr. J. MILSON RHODES (a member of the committee which reported recently upon asylums in the United States) read a paper upon the Provision of Suitable Accommodation for the Various Forms of Insanity. He said that he did not believe that insanity was increasing faster than the population. He thought that British asylums were very good as regards accommodation for patients and administration and that they were admirably staffed in comparison with asylums abroad. The French, he said, praised the British asylum system, the medical officers, the attendants, and the lunacy laws. The number of the Commissioners in Lunacy wanted increasing; the public asylums were as good as any in the world, but the parochial spirit should give way to broader views as regards the erection of new asylums. Custodial institutions for chronic cases of lunacy were bad in theory and in practice. Economy was given as the reason for their continuance but that was the only redeeming feature. Workshops, laundry and kitchen work, and gardening should be freely encouraged and all "working patients" stimulated to work.

Dr. ALAN MCDOUGALL contributed a paper on the David Lewis Manchester Epileptic Colony which was opened in September, 1904, for the treatment of sane epileptics at Alderly Edge, Cheshire. The colonists were provided with industrial occupation and recreation while the mode of life and the diet adopted were those best adapted to ameliorate or to cure their malady. Interesting details were given of the system of buildings, the dormitories, and the workshops. A uniform charge of 14*s.* a week was made to adult colonists. Males and females were received. Special arrangements were made for the training and treatment of epileptic children.

The question of pulmonary tuberculosis in asylums was brought up for discussion in a paper by Dr. GEORGE W. GREENE, assistant medical officer of Claybury Asylum, read by Dr. ROBERT JONES in the absence of the author.—In the discussion following the paper several speakers took part.—Dr. ROBERT JONES gave an interesting account of the mortality from pulmonary tuberculosis as based upon the returns of deaths and post-mortem examinations at the various London county asylums.—Dr. F. G. CROOKSHANK said that the conclusion which he had published seven years ago, to the effect that the death-rate from pulmonary tuberculosis in the asylum population was ten times that from the same disease in the general population, was in no way discredited by Dr. Greene's arguments. He thought that Dr. Greene had confused the death-rate from pulmonary tuberculosis in the insane with the proportion of deaths due to that disease generally.—Further remarks were made by Dr. LIONEL A. WEATHERLY on the System of Warming and Ventilation in Sanatoriums; by Dr. W. LLOYD ANDRIEZEN on Segregation, Diagnosis of Incipient Phthisis, and "Tent Life" for the Tuberculous Insane (of which a graphic account was cited as practised in the United States by Dr. MacDonald of Manhattan Asylum); by Dr. T. DRAPES of Ireland, who condemned steam heating; by Dr. ROBERTSON, Dr. A. R. URQUHART of Perth (who gave credit to Dr. Toulouse of the Villejuif Asylum, France, for the open-air system of treatment which he had adopted as long as 12 years ago), by Mr. H. F. HAYES NEWINGTON, and by the PRESIDENT, after which Dr. JONES replied.—The proceedings then terminated.

THE CONGRESS OF THE ROYAL INSTITUTE OF PUBLIC HEALTH.

THE annual meeting of the Royal Institute of Public Health was held in London from July 19th to 25th at the Polytechnic, Regent-street, and at King's College, Strand, under the Presidency of the MARQUIS of LONDONDERRY.

SECTION OF PREVENTIVE MEDICINE.

Sir JAMES CRICHTON-BROWNE, the Lord Chancellor's Visitor in Lunacy, presided over this section which was held in the Polytechnic, Regent-street. Sir James Crichton-Browne took for the subject of his address

The Prevention of Senility.

The value of preventive medicine, he pointed out, was shown by the diminution of the death-rate as a whole. There were three great epochs of life—namely, growth, equilibrium, and decline—but that division was by no means precise, for the boundaries of the epochs were ill-defined. It was literally true that "we die daily and are daily born again." The processes of decay followed on the beginnings of growth and formative energies were still at work when only decay seemed to be in possession. It was a good working hypothesis to say that the natural life of man was 100 years. Every man was entitled to his century and every woman to a century and a little more. Children should be brought up impressed with the obligation of living to 100 and they should be taught how to avoid the irregularities that tended to frustrate that laudable ambition. To lengthen as well as to strengthen the lives of the people was the object of preventive medicine. Regular employment must be secured and poverty diminished, so that they might no longer have amongst them 13 millions on the verge of hunger and dying in multitudes before their time. These things were beyond the scope of preventive medicine but within its sphere; although much had been done much remained to be done. If old age were to be attained a good start in life must be given, hence the importance of

questions such as infant feeding and milk-supply; the degeneration of the people must be arrested by giving them decent houses and promoting their physical development by affording them facilities for exercise.

Diet and Disease.

Dr. J. HADDON read a paper on this subject, remarking that he lived on one meal a day and ate no animal product except butter.

The PRESIDENT of the section said the reader of the paper was enthusiastic but pointed out that enthusiasm often degenerated into faddism. It ought to be remembered that concurrently with the decrease in the death-rate there had been an increase in the consumption of meat. Nature was against one meal per day.

Dr. S. G. MOORE (Huddersfield) read a paper on

Infantile Mortality.

He said that in the worst parts of some of the great cities only three out of four children born lived for 12 months. With regard to supplying milk for infants he advocated the formation of children's dispensaries, such as existed in France. Misleading statements relating to food should be stopped. Some of the foods advertised for infants caused many deaths. He knew of one article freely advertised as a special food for infants which upon analysis proved to be nothing but baked flour, not only insufficiently nutritive but even injurious to children.

Dr. T. N. KELYNACK opened a discussion on

Sanatoriums for Consumptives.

He said that one-third of all the deaths from consumption in London took place in Poor-law institutions. There were now some 70 sanatoriums in the United Kingdom, with accommodation for about 2760 patients, but the beds available for the working classes and destitute were very few, and even in the best of our paying institutions for the poor beds had to be kept vacant owing to lack of funds. In regard to the poor public effort was merely touching the fringe of the difficulty. It was well to remember that we were still in the experimental stage of our research. He advocated a direct controlling body which could deal with all cases of pulmonary tuberculosis throughout the country. The time was ripe for a Government inquiry into the methods of treatment of the consumptive poor.

SECTION OF MUNICIPAL ADMINISTRATION OF THE EDUCATION ACTS.

This section also met at the Polytechnic, where the President, Mr. J. H. YOXALL, M.P., gave an address on

Secondary Education.

What was wanted, he said, for the bulk of children who were transferred from elementary schools to places of secondary education was a continuative education which would fit them for the higher posts of service in the world of industry and commerce and not the kind of education which would lead up to the learned professions.

Ventilation of Public Buildings.

Mr. J. H. BLIZZARD, after remarking that properly ventilated and sanitary school buildings were the foundation upon which the medical profession should start to prevent the spread of infectious disease, referred to churches which he said were the best places for the spread of pulmonary tuberculosis and the dissemination of the germs of infectious diseases.

Medical Inspection of Schools.

Sir GEORGE KEKEWICH advocated the appointment by the Board of Education of a medical officer whose duty should be to see that local authorities appointed a medical officer to inspect every school in the country and to report on its sanitary condition and the health of the children. He was also of opinion that there should be a thorough inquiry into the sanitary condition of all schools and that those found to be seriously defective should be eliminated.

SECTION OF CHILD STUDY AND SCHOOL HYGIENE.

Training of Teachers.

Lord STANLEY of ALDERLEY presided over this section which was held at the Polytechnic and in his address dwelt upon the necessity of teachers possessing some preliminary training in biology and physiology.

ENGINEERING AND BUILDING CONSTRUCTION.

Sir ALEXANDER BINNIE presided over this section which was opened in the Polytechnic and delivered a most interesting address on

The Drainage of London

which was both historical and practical as regards modern conditions.

A paper was read on the Destruction of Town Refuse by Councillor ATKINSON (Hull), and at King's College, Strand, Mr. C. G. MOORE discussed

Problems in Practical Disinfection.

He dwelt on the ineffective character of many of the routine methods of disinfection and called attention to the variable and often valueless character of the so-called disinfectant fluids of commerce. Although the disinfection of clothes and other fabrics was practised by some sanitary authorities it was neglected very largely in districts which had failed to understand the importance of providing that means against the spread of infection.

Dr. DAVID WALSH read a paper on

How to Sterilise London Drinking Water.

Referring to the contamination of the Thames by sewage, he said that hitherto it had not been possible to sterilise sewage on a very large scale but now it could be done by the Salvator apparatus which had been tested and found to render water absolutely sterile. By its aid water could be rapidly sterilised and delivered cool, sparkling, and palatable. The same machine could be used to sterilise all sewage effluents discharged into the upper Thames.

Smoke Abatement.

A paper on this subject was read by the Hon. ROLLO RUSSELL. He expressed the opinion that kitchen and ordinary domestic fires were the main cause of London fogs. The remedies he suggested were improved methods of heating but the best of all remedies, he said, would be the removal of the people of London to the country.

The Air Supply of London.

Dr. T. GLOVER LYON read a paper dealing with the question of supplying fresh air to London and said that "tube" railways could be arranged to supply pure air to the central part of the city and to remove vitiated air from it. There ought to be a department of public health presided over by a Minister sitting in the Cabinet.

Looking Back.

FROM

THE LANCET, *SATURDAY*, July 28, 1827.

ASSISTANT SURGEONS IN THE NAVY.[1]

To the Editor of THE LANCET.

SIR,—I am surprised that you should have inserted in a former number of THE LANCET, the fastidious and unfounded complaints of "An Assistant Surgeon in the Navy." He talks about being degraded to mess in the midshipman's berth, "with unruly boys." What! is it a degradation for a medical school-boy (for such, in point of practical experience is a young assistant surgeon,) is it a degradation, I ask, to mess with a young Rodney, a Howe, a Duncan, a Nelson! Doubtless, if this assistant had been so degraded, he would have gloried in his shame, and stood "a tip toe" when their names were mentioned. "Surely," says this Assistant Surgeon, "his education, and respectability as a medical man, entitle him to rank with any lieutenant, master, purser, or marine officer in the Navy." Now, Sir, neither respectability nor education entitle any officer to rank; and no such degree of them, as thirteen years' experience have enabled me to observe in assistant-surgeons in the navy, will render them superior in general information to the junior officers, whose society this gentleman deems so unruly. I do not hesitate to say, that in any midshipman's berth he ever entered, there was as much respectability, and as much education, before his entrance as after it. Non omnia possumus omnes; even the

[1] See letter from "An Assistant Surgeon in the Navy" reproduced under the heading of "Looking Back" in THE LANCET of June 24th, 1905, p. 1730.

medical gentleman himself is not *ground* in all knowledge. Is there no education but what is anatomical? Is there no respectability but what is medicinal? Are the sciences exclusively medical? Is plane trigonometry concentrated in the carving of lozenges, or spherical in the rolling of pills? Surely, Sir, there is no less absurdity in comparing the "airy apartments of a house on shore, to the necessary confinement of a ship; and, in complaining of his want of accommodation, there is no less injustice in the statement of the Assistant Surgeon. When the junior officer—the unruly boy—the offensive messmate of this respectable and educated assistant, is "biding the pelting of the pitiless storm," he, "good easy man," is snugly housed between decks, reading books, learning, or most probably picking bones. When the "degraded" midshipman is on the high and giddy mast, watching the out-hauling of a weather earing, the scientific "idler," as he is not inaptly called at sea, is either elaborating an extract, or rotating a pill; and instead of being recommended by the wet or cold, his manipulations are aided *latereally* by the rolling of the ship, and *anteriorly* by her pitching; in short, Sir, he is at perfect liberty to take every advantage of the wind and weather.

In battle too, when the "unruly boys" are lifting their voices amidst the roar of cannon, and surrounded by "the pride, pomp, and circumstance of glorious war," the respectable medical assistant is doing his duty, deeply sunk in a bomb proof element.

The education of this respectable assistant has taught him, it seems, that it is very warm in hot climates, so much so, indeed, as to render it agreeable to dine with the coat off. Forsooth this hot weather and close apartments, are insufferable to our gallant assistant; it is by no means salubrious "Look," says he, "at the army medical man dining in a comfortable airy apartment, and enjoying all the luxuries of the *shore*." It is certainly natural for the human members to take care of the human belly, and especially for medical members to consider a medical belly; but there is somewhat too much of this, even in a respectable assistant surgeon, who has been so many years in the naval service. He appears to me, what his messmates, the unruly boys, would certainly call him, a shore-going doctor. "Look again," says he, "at the army medical man, who has his quarters allotted to him with every convenience that can be procured on *shore*." I suppose such an assistant would have the ship herself on *shore*.

The Assistant Surgeon invidiously notices, "That the gunner, boatswain, and carpenter, are each entitled to a cabin." Now, Sir, had his superior education only lifted his mind from the mortar, to contemplate the reason of the circumstances which stood around him, and had his respectability permitted him, he might have perceived that these warrant officers are each of them at the *head* of their respective professions, and can attain no higher station, and should therefore justly be allowed as many privileges as may render their situation a desirable one, to excite the emulation of such as may seek it. He would not thus have complained, that such privileges were withheld from an assistant surgeon, to whom are open the superior ranks of surgeon and physician, with their respective profits and accommodations. The Assistant Surgeon complains that he is obliged to sleep in a hammock "like one of the lowest rank;" why, Sir, all his messmates sleep in hammocks, the lieutenants, the captain, and even the admiral himself sleep in "cots," a species of hammock, and sometimes prefer the hammock itself! What, in the name of Æsculapius, would the assistant sleep in? "Airy apartments, quarters allotted to him, dressing tables, &c." Why, Sir, even the Lord High Admiral himself dispenses with these things. With respect to his comparison between the pay of the medical men in the army and navy, it least of all becomes one of his class to make the complaint. It is true that the navy generally is paid far inferior to the army. But both in pay and convenience the naval assistant surgeon is better accommodated than any of his rate on board, and the full surgeon than his rate; the assistant surgeon's pay is far greater than a midshipman's who has served ten or twelve years; he has no watch to keep, and is never exposed to the inclemency of the weather. By inserting this letter, you will do but justice to the government of the navy, as it respects assistant surgeons.

I am, Sir,
Your obedient humble servant,
Dublin, June 29, 1827. G. H. H.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8900 births and 4002 deaths were registered during the week ending July 22nd. The annual rate of mortality in these towns, which had been 12·7, 11·6, and 12·9 per 1000 in the three preceding weeks, further rose to 13·4 per 1000 last week. In London the death-rate was 12·7 per 1000, while it averaged 13·7 in the 75 other large towns. The lowest death-rates in these towns were 3·1 in Hornsey, 5·5 in Bournemouth, 5·8 in Smethwick, 6·0 in Burton-on-Trent, 6·2 in Hastings, 7·6 in Handsworth (Staffs.), 7·7 in Derby, and 7·8 in Gateshead; while the highest rates were 18·4 in Sunderland and in Merthyr Tydfil, 18·9 in Great Yarmouth, 19·1 in Stockport, 19·9 in Barrow-in-Furness, 20·5 in Oldham, 22·1 in Liverpool, and 24·1 in Bootle. The 4002 deaths in these towns last week included 612 which were referred to the principal infectious diseases, against 371, 388, and 486 in the three preceding weeks; of these 612 deaths 431 resulted from diarrhœa, 64 from measles, 45 from whooping-cough, 32 from diphtheria, 24 from scarlet fever, and 16 from "fever" (principally enteric), but not any from small-pox. No death from any of these diseases was registered last week in Hornsey, Bournemouth, Great Yarmouth, Burton-on-Trent, King's Norton, Derby, Tynemouth, and Newport (Mon.), while they caused the highest death-rates in Aston Manor, Stockport, Birkenhead, Liverpool, Bootle, Leeds, Sheffield, and Sunderland. The greatest proportional mortality from measles occurred in Birkenhead, Barrow-in-Furness, and Sunderland; from whooping-cough in Aston Manor; and from diarrhœa in Hanley, Aston Manor, Stockport, Birkenhead, Liverpool, Bootle, Wigan, Leeds, Sheffield, and Merthyr Tydfil. The mortality from scarlet fever, from diphtheria, and from "fever" showed no marked excess in any of the large towns, and no death from small-pox was registered during the week. The Metropolitan Asylums Hospitals contained three small-pox cases at the end of last week, against four, five, and four at the end of the three preceding weeks; no new cases were admitted during the week, against one, two, and two in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2473, 2499, and 2520 on the three preceding Saturdays, had declined again to 2485 on Saturday last, July 22nd; 304 new cases were admitted during the week, against 334, 354, and 356 in the three preceding weeks. The deaths in London referred to pneumonia and diseases of the respiratory system, which had been 140, 90, and 104 in the three preceding weeks, further rose to 117 last week, but were three below the number in the corresponding period of last year. The causes of 47, or 1·2 per cent., of the deaths in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Portsmouth, Bristol, Salford, Leeds, and in 46 other smaller towns; the highest proportions of uncertified deaths were registered in Liverpool, Warrington, Sunderland, South Shields, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 16·5, 14·7, and 14·3 per 1000 in the three preceding weeks, further rose to 15·2 per 1000 during the week ending July 22nd, but was 1·8 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 9·0 in Leith and 13·0 in Dundee, to 16·5 in Paisley and 19·8 in Perth. The 510 deaths in these towns included 22 which were referred to diarrhœa, 21 to measles, 12 to whooping-cough, three to diphtheria, two to "fever," and one to scarlet fever. In all 61 deaths resulted from these principal infectious diseases last week, against 65, 57, and 55 in the three preceding weeks. These 61 deaths were equal to an annual rate of 1·8 per 1000, which was 0·2 per 1000 below the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of diarrhœa, which had been 14, 13, and seven in the three preceding weeks, rose again last week to 22, of which 16 occurred in Glasgow, two in Edinburgh, and two in Dundee. The deaths from measles, which had been 17, 14, and 19 in the three preceding weeks, further rose

to 21 last week, and included 14 in Glasgow, four in Edinburgh, and two in Perth. The fatal cases of whooping-cough, which had been 31, 26, and 25 in the three preceding weeks, further declined last week to 12, of which seven were registered in Glasgow and two in Paisley. The deaths from diphtheria, which had been one, three, and one in the three preceding weeks, rose again to three last week and included two in Edinburgh. Of the two deaths from "fever," one from typhus occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 68, 65, and 65 in the three preceding weeks, further declined last week to 62, and were 13 below the number in the corresponding period of last year. The causes of 13, or nearly 3 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 14·9, 16·9, and 19·7 per 1000 in the three preceding weeks, further increased to 20·1 per 1000 during the week ending July 22nd. During the past four weeks the death-rate has averaged 16·9 per 1000, the rates during the same period being 11·9 in London and 15·3 in Edinburgh. The 146 deaths of persons belonging to Dublin registered during the week under notice were three in excess of the number in the preceding week and included 20 which were referred to the principal infectious diseases, against seven, eight, and 17 in the three preceding weeks; of these, 18 resulted from diarrhœa, one from whooping-cough, and one from "fever," but none from small-pox, measles, scarlet fever, or diphtheria. These 20 deaths were equal to an annual rate of 2·8 per 1000, the death-rates last week from the principal infectious diseases being 1·5 in London and 1·4 in Edinburgh. The fatal cases of diarrhœa, which had been two, six, and 14 in the three preceding weeks, further rose last week to 18. The 146 deaths in Dublin last week included 45 among children under one year of age and 30 among persons aged 60 years and upwards; the deaths of infants corresponded exactly with the number in the preceding week, while those of elderly persons showed a slight increase. Eight inquest cases and nine deaths from violence were registered; and 45, or nearly one-third, of the deaths occurred in public institutions. The causes of 11, or nearly 8 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of Her late Majesty's Order in Council of April 1st, 1881, Fleet Surgeon William Rogerson White, C.B., has been placed on the Retired List, with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets (dated July 17th, 1905).

ROYAL ARMY MEDICAL CORPS.

Major C. G. Spencer, from the Curragh, is attached to the Royal Army Medical College. Lieutenant-Colonel F. P. Nichols is posted to the Eastern Command to take charge of the Station Hospital and troops at Norwich, vice Major D. M. O'Callaghan, who goes to Colchester for duty.

Colonel W. E. Webb retires on retired pay (dated July 22nd, 1905). Lieutenant J. Waddell, from half-pay, to be Lieutenant (dated June 23rd, 1905). Lieutenant J. Waddell to be Captain (dated June 23rd, 1905).

CHANNEL ISLANDS MILITIA.

3rd or South Battalion, Royal Jersey Light Infantry: Surgeon-Major A. B. Voisin resigns his commission (dated June 17th, 1905).

IMPERIAL YEOMANRY.

The City of London (Rough Riders): Surgeon-Lieutenant G. F. M. Clarke resigns his commission (dated July 3rd, 1905); Robert Martin McQueen to be Surgeon-Lieutenant (dated July 3rd, 1905). Nottinghamshire (South Nottinghamshire Hussars): The announcement of the appointment to a Surgeon-Lieutenancy of William Trethowan Rowe, which appeared in the *London Gazette* of June 6th, 1905, bears date May 22nd, 1905.

VOLUNTEER CORPS.

Royal Garrison Artillery (Volunteers): 1st Fifeshire: Supernumerary Surgeon-Captain (Honorary Captain in the Army) J. C. G. Macnab is absorbed into the Establishment (dated July 22nd, 1905). 1st Shropshire and Staffordshire: Surgeon-Major J. P. Massingham is granted the honorary rank of Surgeon-Lieutenant-Colonel (dated July 22nd, 1905). The Highland: Edward Elmslie Brown to be Surgeon-Lieutenant (dated July 2nd, 1905).

Rifle: 4th Volunteer Battalion the Royal Fusiliers (City of London Regiment): Surgeon-Captain H. Dutch to be Surgeon-Major (dated July 22nd, 1905). 2nd Volunteer Battalion the Cameronians (Scottish Rifles): Surgeon-Major R. T. C. Robertson to be Surgeon-Lieutenant-Colonel (dated July 22nd, 1905). 1st Volunteer Battalion the Prince of Wales's (North Staffordshire Regiment): Lawrence Campbell Vigor Hardwicke to be Surgeon-Lieutenant (dated July 22nd, 1905).

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Harwich Bearer Company: Major (Surgeon-Major, Army Medical Reserve of Officers) S. S. Hoyland is granted the honorary rank of Lieutenant-Colonel (dated July 22nd, 1905).

ROYAL ARMY MEDICAL COLLEGE.

The *Army and Navy Gazette* of July 22nd contains the following announcement: "Some changes in the *personnel* of the Royal Army Medical College may shortly be expected. We understand that the professor of clinical and military medicine, Colonel K. MacLeod, I.M.S., retired, will vacate the appointment and be succeeded by Colonel David Bruce, C.B., F.R.S., R.A.M.C. Then the professor of military surgery, Surgeon-General W. F. Stevenson, C.B., R.A.M.C., retires at the end of this month and will, in all probability, be succeeded by Major C. G. Spencer, R.A.M.C., whose claims and qualifications stand very high, he being an M.B. Lond. and F.R.C.S. Eng. Further, in January next Lieutenant-Colonel R. H. Firth, R.A.M.C., Professor of Military Hygiene, will vacate his appointment. The selection of his successor lies between Lieutenant-Colonel A. M. Davies, R.A.M.C., now expert in sanitation, and member of the Army Medical Service Advisory Board, and Major W. H. Horrocks, R.A.M.C. Both possess high qualifications. It is reported that close on 80 officers of the Royal Army Medical Corps will be required for India and the colonies during the next relief season. Last season about a similar number were also on the foreign roster."

THE VOLUNTEERS AND THE LATE WAR OFFICE CIRCULAR.

It will be remembered that Mr. Arnold-Forster in his recent circular proposed that the men composing the Volunteer forces should be subjected to a medical inspection and examination in order to ascertain the number of those who were fit for service abroad. We now learn from the *Standard* of July 25th that the members of three companies of the 1st Dorset Artillery Volunteers, assembled for gun practice at Portland, "declined to submit to any such examination, the ground taken being that their contract was to make themselves efficient to serve anywhere in the United Kingdom. They were, they declared, efficient and prepared to fulfil their contract, but they held that they were within their right in refusing to submit to a medical examination for foreign service."

THE NEW NAVAL HOSPITAL AT CHATHAM.

On July 26th the King formally opened the new Royal Naval Hospital at Chatham. The buildings will contain 600 beds with accommodation for 90 members of the staff.

THE HEALTH OF THE JAPANESE IMPERIAL NAVY.

Baron Saneyoshi, Chief of the Bureau of Medical Affairs, in his report on the health of the Japanese Navy for the year 1902, which has just been issued, says: The mean daily force in the service for the year under notice was 30,445 persons, an increase of 3976 in comparison with 26,469 persons of the preceding year. The number of cases of disease and injury reported amounted to, as a result of the expansion of the navy, 25,670, which shows an increase of 716 cases as compared with 24,954 of the preceding year and the number of days' sickness, which is 620,686 days, shows an increase of 35,821 when compared with 584,865 days of the last year. But the ratios of cases of men sick daily per 1000 of force are 843·16 and 55·86 respectively, and the former shows a decrease of 99·60 per 1000 as compared with 942·76 of the previous year, while the latter gives a decrease of 4·68 in comparison with 60·54 of the same year. Such satisfactory results may be regarded as showing a gradual improvement of the health of the navy.

The total number of cases entered under diseases of the urinary and generative systems was 435, which exhibits a ratio of 14·29 per 1000 of force, being a decrease of 2·94 per 1000 as compared with the previous year. There were two cases of deaths, the ratio being 0·07 per 1000 of force, but no case of death occurred in the previous year. Invaliding numbered three, which show a ratio of 0·10 per 1000 of force, being a decrease of 0·05 per 1000 when contrasted with the previous year. The total number of cases comprised under the heading of venereal diseases amounted to 5452, the ratio being 179·08 per 1000 of force, which shows a decrease of 44·80 per 1000 as compared with the last year. Only one case of death occurred but no case appeared in the last year. There were four cases of invaliding, which is in a ratio of 0·13 per 1000 of force, showing a decrease of 0·36 per 1000 as compared with the year before. The venereal diseases are most numerous of all the cases every year and though they show some decrease in this year they still give a ratio of 21·24 per cent. of the total number of all the cases recorded. Arranged according to the number of cases the principal diseases under this heading are as follows: gonorrhœa and its sequelæ, 1985; soft chancre, 1383; bubo, 1027; secondary and tertiary syphilis, 790; and hard chancre, 267.

Correspondence.

"Audi alteram partem."

GRIFFITHS TESTIMONIAL FUND.

To the Editors of THE LANCET.

SIRS,—Allow me on behalf of the wife and family of my brother, the late Dr. A. D. Griffiths of Bridgend, to express our grateful thanks for the practical sympathy shown by the organisers of, and subscribers to, the above fund. I know it was a very great source of comfort to my brother to find so many of our professional brethren coming forward to support him in this time of trial and that the amount realised helped considerably to lighten his load. You also, Sirs, who did so much to forward the fund, I beg to include in our thanks.

I am, Sirs, yours faithfully,

Bristol, July 26th, 1905. JOHN S. GRIFFITHS.

THE USE OF PHENYLHYDRAZIN IN THE EXAMINATION OF URINE.

To the Editors of THE LANCET.

SIRS,—Apparently Mr. L. C. S. Broughton has not done me the honour of reading my paper carefully, as on p. 17, line 3, I gave the usually accepted melting points of the phenylhydrazin compounds of glycuronic acid which he states in his letter of July 22nd are omitted. My object in the communication I made was not to advocate or to disparage any particular method of performing the phenylhydrazin test but to summarise the advantages and disadvantages of each. Most modern writers on the subject have shown a preference for some modification of the rapid boiling method for clinical work and it is interesting to hear that Mr. Broughton is not in agreement with them.

I am afraid I have not made myself quite clear on another point and that is the part which the physical conditions under which a chemical experiment is performed take in determining its result. The two sentences regarding the rates of osazone formation which Mr. Broughton quotes from my paper and states are contradictory are not so in point of fact, for they refer to two entirely different methods of experimenting and cannot be compared. Similarly it is not justifiable to argue from the rates of osazone formation in simple watery solution to what may be expected under the different physical conditions existing in urine.

I am, Sirs, yours faithfully,

July 27th, 1905. P. J. CAMMIDGE.

GROCCO'S TRIANGLE IN PLEURAL EFFUSION.

To the Editors of THE LANCET.

SIRS,—As the case mentioned in the concluding paragraph of my paper in THE LANCET of July 22nd might appear to invalidate the statement occurring at the bottom of page 216, which should read as follows after the correction of a slight clerical error:—

"..... Therefore when a skilled percussor has determined by two or three strokes, and with great accuracy if he should be familiar with the pleximeter, the height of the triangle and the slope of its third side, which is then to be continued from apex to base with a touch of the pencil, *he has not only demonstrated that fluid has gathered in the chest, but also determined its upper level.*[1] ....," &c.—

I would by your courtesy lay stress upon the fact that the triangle in the case in question was, as compared with the ordinary triangle observed in pleural effusions, quite unusually broad, and strictly speaking a *modified* Grocco's triangle, rather than one conforming to Grocco's description.

As cases of this sort, with abdominal dulness rising a slight distance only into the thorax, are of constant occurrence and often difficult to diagnose I may point out that the feature of a Grocco's triangle due to a small intrapleural collection is the smallness of its dimensions and particularly of its base. The coincidence, as in this case, of a dulness confined to the bottom of the chest with a triangle which was very broad and very dull in spite of its shortness might, perhaps, in the future be found to indicate that the cause of the dulness was situated in the abdomen rather than in the thorax.

I am, Sirs, yours faithfully,

July 22nd, 1905. WILLIAM EWART.

A NEW ELECTRO-CYSTOSCOPE.

To the Editors of THE LANCET.

SIRS,—Referring to an article published in THE LANCET of June 10th, p. 1569, under the heading of "A New Electro-Cystoscope," by William K. Otis, M.D., we wish to make the following remarks. The construction of Dr. Otis's instrument is not new but is generally known. The hemispherical lens is covered by our patents No. 222,384 of March 8th, 1904, and No. 198,437 of April 7th, 1903. We provide cystoscopes with this lens if ordered specially but we make no general use of it as it has not proved so satisfactory as that in the old and well-tried Nitze's system. The other advantages, as claimed for the new instrument by Dr. Otis, are the separate telescope as used in our evacuation cystoscope since 1893 and cold lamps which we have supplied since 1899.

As to the visual field of the Otis cystoscope, we wish to remark that our cystoscopes have, at a distance of four centimetres, a field of 62 millimetres and not of 43 millimetres, as stated by Dr. Otis. It seems to us that Dr. Otis used during his investigations a very old and defective instrument and compared it with his new one. We claim for our cystoscopes that they will give perfectly sharp and clear images. Our instruments would allow, without any difficulty, an enlargement of the field, but in this there would be no advantage, for it is known to every expert that the sharpness of the image suffers by enlargement of the field; in fact, the margins of an extremely enlarged field appear distorted. Square reticulations viewed by the Otis cystoscope will show this distortion clearly, and this makes comparison between objects at the margin and objects in the centre of the field impossible. Ignorance of this fact would mislead observers as to the real appearance of the bladder-wall.

In conclusion we wish to remark that we claim the exclusive right of manufacturing the instrument described. We beg to ask you to insert this letter in the next number of THE LANCET.

We are, Sirs, yours faithfully,

LOUIS & H. LOEWENSTEIN.

28, Ziegelstrasse, Berlin, July 10th, 1905.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Lunacy in Birmingham.

FROM the report of the lunatic asylums committee it appears that whereas on April 1st, 1904, there were 1657 patients in the city asylums, on March 31st, 1905 there were 1701. The annual report by Professor E. B. Whitcombe which is appended contains interesting tables showing the rate of increase of insanity in England generally and in Birmingham particularly—a slow, steady, continuous rise.

[1] The italics do not occur in the text.

Other tables show the proportion of cases since 1870 due to drink and heredity. The cases attributed to alcoholism have varied from 7·7 to 27·6 per cent. and those attributed to heredity from 5·3 to 32·8 per cent. He regards sterilisation as the only effective means of coping with the steady increase of the disease.

Birmingham and Cottage Baths.

At the last meeting of the baths subcommittee of the baths and parks committee of the city council it was decided to recommend to the general committee the provision of cottage baths. The scheme is to rent buildings in the most congested districts in which the poor live—probably the experiment will be tried in the Floodgate-street area—and to convert the rooms into cubicles and to provide each cubicle with an ordinary washing and shower bath. The baths are intended primarily for those who cannot be induced to make use of the facilities at the existing public bathing establishments. A nominal uniform charge will be made and, acting upon the suggestion of the chairman of the health committee, it is proposed that the officials of the health department and the lady health visitors should be given a limited number of free admission tickets for those whose circumstances render any payment whatever difficult. Should the experiment prove successful similar baths will be opened in other districts.

The Pollution of the Trent.

Within the last few days an open letter has been addressed to the Earl of Dartmouth, Lord Lieutenant of Staffordshire, by the Duke of Sutherland in which he complains of the pollution of the Trent which has taken place to such a degree that he has been advised that it is unsafe for him and his family to continue to live at Trentham Hall. He also threatens legal action against the Pottery towns, particularly against Stoke, which, in a further letter through his solicitors, he states is making no effort whatever to grapple with the problem, whereas nearly all the other boroughs contributing to the pollution are making efforts to mitigate the nuisance. At Longton £80,000 are being spent on new sewage works, at Burslem £40,000, at Tunstall £10,000, at Wolstanton £7000, and at Fenton £33,500. The corporation of Stoke has spent nearly £50,000 and it contends that the effluent which flows into the Trent really dilutes the foulness of the river rather than pollutes it. It declares that the Trent enters the town in a foul state and the Fowlea Brook in a still more filthy condition. A special meeting of the town council has been called to consider the Duke of Sutherland's letter, but what passed has not yet been published.

July 25th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Graduation Ceremony at the University of Liverpool.

AT a special graduation ceremony held in the senate room of the University on July 22nd the degree of Bachelor of Medicine and Surgery was conferred on the following gentlemen: Charles Harold Smith (first-class honours), Bertram Thomas, Johnson Glover, Richard H. Mole, Courtnay Yorke, and Warrington Yorke (second-class honours). The ordinary degree of Bachelor of Medicine and Surgery was conferred on Robert Cook, John F. Edmiston, Thomas E. Jones, Thomas W. Parry, and Francis H. Storey. The candidates were presented for graduation by Professor B. Moore, the dean of the Medical Faculty, and admitted to degrees by Vice-Chancellor Dale who delivered an address to the newly admitted graduates. The following graduates have been awarded the Diploma in Public Health: A. Critien, M.D., and J. B. Yeoman, M.D., F.R.C.S. Edin.

Are Inebriate Homes a Failure?

At a meeting of the Cheshire standing joint committee, held on July 15th, the chief constable presented a report as to the conduct of habitual drunkards who had been liberated from inebriate homes. He stated that since the Act came into operation on Jan. 1st, 1899, 13 persons had been sent to inebriate homes. Of these six had been liberated and they were all women whose ages varied from 34 to 50 years; five of these six were sent to the Bristol home; the other one was sent to a home in Middlesex. Four were sent for a term of three years and two for one year. Detailing the results of the treatment in these homes the chief constable said that one person was as bad as ever and from the day she was liberated she went from bad to worse and died on May 5th, 1904. The second one was now in prison. One person from Altrincham had been seen once under the influence of drink; otherwise she conducted herself well. The detention of a Northwich woman had not reformed her and she craved for intoxicants, as prior to her admission to the home. Dr. Hodgson said that the powers given to the magistrates were inadequate to enable them to reach the curable cases. The incurable cases were practically the only ones that they could reach at present. Practically, it cost £500 to cure one patient and the opinion was expressed that they were wise in Cheshire in not following the example in other counties of building expensive homes for the treatment of inebriates. It seemed to be an absolute waste of money, inasmuch as individuals must be hopeless drunkards before they could be sent to an inebriates' home.

The Select Vestry and the Local Government Board.

At the meeting of the select vestry on July 18th Mr. T. D. Laurence asked whether any reply had been received from the Local Government Board with reference to the agreement between the select vestry and the West Derby guardians as to better accommodation for the epileptic and imbecile poor from the districts of the two boards. The vestry clerk (Mr. H. J. Hagger) said that no reply had been received. He wrote originally on March 22nd and forwarded a copy of the draft agreement to the Local Government Board. Not hearing anything he wrote again on May 7th, mentioning the previous letter and soliciting a reply, but only a bare acknowledgement had been received. Mr. Laurence and Mr. Crosfield expressed the opinion that it was high time the select vestry had a reply.

Lunacy in Lancashire: Increased Accommodation Required.

At Whalley, on July 20th, a Local Government Board inquiry was opened respecting the proposal to erect a new county asylum for Lancashire to accommodate 2000 inmates. A site of 230 acres has been provisionally acquired but the objection urged by local residents, that the site was unsuitable, stopped the scheme in its later stages and led to this inquiry. Mr. Harcourt Clare, the clerk to the Lancashire county council, supporting the application on behalf of the Lancashire asylums board, said that though there were five large asylums with accommodation for nearly 11,000 inmates, there were only about 213 beds at liberty. There were in Lancashire workhouses over 3000 insane paupers, the great majority of whom ought to be in properly managed asylums. There was no asylum in East Lancashire and the board had long felt it desirable to establish one.

Health of Liverpool.

It was reported at the meeting of the health committee on July 20th that during the past week the death-rate of the city was 16·8 per 1000, as against 19·9 per 1000 last year. There were in the city hospitals 485 cases of scarlet fever, eight of typhus fever, 22 of typhoid fever, 34 of measles, and 54 of diphtheria.

Bequests to Liverpool Charities.

By the will of the late Sir John Willox of Liverpool bequests were made to the Liverpool Royal Infirmary, the Royal Southern Hospital, and the Liverpool Stanley Hospital of £10,000 each. £10,000 were also bequeathed to the Liverpool Sanatorium for Consumption at Delamere Forest to be known as the "Lady Willox Endowment Fund."

July 25th.

LEEDS.

(FROM OUR OWN CORRESPONDENT.)

The West Riding Medical Charitable Society.

THE members of the West Riding Medical Charitable Society, which held its seventy-seventh annual meeting in Leeds on July 22nd, have great reason to be proud of the work which has been accomplished since the society's commencement. The society was started in the year 1828 by 47 medical men of the West Riding who subscribed one guinea each, the sum fixed on as the amount of the annual subscription. Donations from the more affluent members of the profession and from members of the general public were unobtrusively solicited. The motto of the society in its early years seems to have been the wise one of *festina lente*, for a resolution was come to that until the society had accumulated

funds to the amount of £2000 there should be no expenditure by the making of grants. This was achieved in 1837 and in that year the first two grants were made of £15 each, one to the widow of a medical man and the other to a disabled practitioner. From this time the society has carried on its charitable work uninterruptedly from year to year, doing an amount of good which it would be hard to estimate. Its objects are: (1) to aid the widows and children of members dying in indigent circumstances; (2) to aid the sisters of such members, being single women or widows, who have lived with their brothers as housekeepers for a period of not less than five years preceding their death; (3) to aid such members as are wholly or partially disabled by age or permanent bodily infirmities or who are disabled by severe illness from practising for a period of six months; and (4) to aid in the education of the children of members thus incapacitated or temporarily disabled. All applications for relief are most carefully considered and decided on at the annual meeting. This year there were 40 applicants. All these were met by grants varying from £20 to £60 and the society has had the gratification of distributing £1420 in this way, which is the largest amount it has as yet been able to vote. 25 of these grants were made to the widows of medical men, 11 to the children of deceased members, and four to disabled practitioners. When this sum is added to the grants which have been made since the year 1837, the first year the society felt in a position to vote any money, it is found that no less than £40,043 have been given away. The income of the society is derived from the annual subscription of some 730 members, including about a dozen who are not members of the profession, and from its invested funds which are of the nominal value of £30,674 and which yield some £1030 per annum. To the invested funds the general public have contributed about £4300. The prosperous condition of the society depends clearly on the care and economy of its management from its earliest existence. The expenses of management are remarkably low and consist year after year of a small bill for printing and postage amounting to about £30 and a sum of 10*s.* 6*d.* for a copy of the medical directory. There are no incidental expenses. All credit to the late Mr. Garlick who was the first secretary, to the late Dr. Chadwick who succeeded him, to Mr. C. G. Wheelhouse who was appointed joint secretary with Dr. Chadwick in the year 1874, and to Mr. G. H. Rowe who has been associated as co-secretary with Mr. Wheelhouse since the year 1887. The annual meetings give occasion for a pleasant reunion of medical men gathered together for the congenial purposes of distributing grants and dining with each other.

Appointment of Clinical Lecturers in the University.

In order to strengthen the bonds of union which have always been so cordial and intimate between the medical school and the infirmary and in order to give University recognition to members of the staff of the infirmary who may not be on the teaching body in other capacities, it has been decided by the council of the University to institute clinical lectureships on medicine, surgery, gynæcology, ophthalmology, and otology, and that the holders of these posts should have seats on the Faculty of Medicine. In harmony with a recommendation of the Senate that the council should invite those members of the honorary staff who may be recommended by the Senate to the council on a report of the Board of the Faculty of Medicine, and following on such actual recommendations invitations have been issued to members of the staff as follows. As clinical lecturers in medicine:—The honorary physicians: Dr. Thomas Churton, Dr. A. G. Barrs, and Dr. C. M. Chadwick; the honorary physicians with charge of out-patients: Dr. T. Wardrop Griffith and Dr. E. F. Trevelyan. As clinical lecturers in surgery:—The honorary surgeons: Mr. E. Ward, Mr. W. H. Brown, Mr. H. Littlewood, and Mr. R. Lawford Knaggs; the honorary assistant surgeons: Mr. B. G. A. Moynihan and Mr. W. Thompson. As clinical lecturer in gynæcology:—Dr. J. B. Hellier. As clinical lecturers in ophthalmology and otology:—The honorary surgeons of the eye and ear department: Mr. H. Secker Walker and Mr. A. L. Whitehead; the honorary assistant surgeon of the eye and ear department: Mr. G. Constable Hayes. A clinical lectureship in infectious diseases has also been instituted and this has been offered to Mr. A. E. A. Pearson who for many years has held the post of resident medical superintendent of the city hospitals and whose courses of practical instruction have been much appreciated by the students. This clinical lectureship also carries with it a seat on the faculty. As the same time Mr. A. T. Bacon, the instructor in vaccination appointed by the Local Government Board, was elected a member of the Faculty of Medicine.

July 25th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Memorial to the late Dr. William Turnbull.

IT is nearly two years—Sept. 20th, 1903—since the University of Durham College of Medicine lost its popular and faithful demonstrator of anatomy by the death of Dr. Turnbull and his name is now about to be honoured by the establishment of a memorial in the department for which he laboured so long and so earnestly. Shortly after his death a committee was formed, with Sir G. H. Philipson as chairman, to collect funds for this purpose. A little over £100 was raised and at a general meeting of graduates and students held on July 18th it was unanimously decided to erect a brass tablet to his memory in the dissecting room of the college and to found a prize in surface anatomy. Had it been Dr. Turnbull's lot to decide what form any anatomical prize should take he certainly would have selected surface anatomy, for he never tired in his efforts to make his students appreciate the importance of this branch of their studies. The exact details of the scheme have yet to be arranged but it is practically decided that students shall be eligible to compete for the prize at the end of their second winter and that the examination shall be an oral one conducted by the professor of anatomy and his assistant.

Appointment of Demonstrator of Bacteriology at the University of Durham.

Mr. H. J. Hutchens has been selected as the demonstrator of bacteriology at the University of Durham. This is the second time that a St. Bartholomew's man has been appointed to this post, for the late Dr. Bigg also emanated from that school. Mr. Hutchens goes to Newcastle not only with a reputation in his own department but possessing the coveted distinction of Membership of the Distinguished Service Order. He intends to continue his work for the Royal Commission on Tuberculosis.

Heath Scholarship.

The subject for the 1908 essay has just been announced as "Injuries and Diseases of the Arteries, Veins, and Capillaries, and their Treatment." The essay must be typewritten or printed and must reach the professor of surgery not later than March 31st of the year for which it is to be awarded.

Newcastle-upon-Tyne Royal Infirmary.

A new edition of the Hospital Pharmacopœia has just been issued and supplies a long-felt want, for the last edition (1892) has long been out of print. The work has been carried out under the direction of a committee of the medical and surgical staff, assisted by Mr. Sidney Dunstan, F.C.S., M.P.S., head dispenser and teacher of pharmacy to the institution. The result is a very handy and presentable little volume. In addition to the usual information it contains a great deal that will make it a very useful pocket manual for students. The methods commonly used for staining of organisms, examination of urine, preparation of invalid foods, and a table of poisons and their antidotes are useful additions.

July 24th.

WALES AND WESTERN COUNTIES NOTES

(FROM OUR OWN CORRESPONDENTS.)

Health Report for Cardiff.

IN his recently issued annual report the medical officer of health of Cardiff (Dr. E. Walford) says that the housing accommodation for the working classes is on the whole satisfactory and overcrowding does not exist to any appreciable extent. He defines overcrowding as the occupation of a dwelling with more than two adults to each room counting two children under 12 years of age as equivalent to one adult. Large block tenemental artisans' dwellings do not exist in Cardiff, most of the working-class families occupying

separate dwellings with an open space in the front and at the back. Many of these are sublet to single lodgers or to small families but in one or two districts of the town there are many small cottages, in which no lodgers are taken, let at a weekly rental of 5*s*. In June, 1904, an inspection of the town revealed the fact that about 4·4 per cent. of the total number of houses in the borough were unoccupied. The medical officer of health is the executive officer intrusted with the administration of the Midwives Act in Cardiff and he is assisted by a woman sanitary inspector who visits the midwives on the roll in order to explain when necessary the rules of the Central Midwives Board and to enforce compliance with them. There are in Cardiff 96 midwives certified under the Act, of whom 83 were certified on the ground of having been in *bonâ-fide* practice as midwives for at least one year prior to July 31st, 1902, while 12 were certified on the ground of holding the certificate in midwifery of the Obstetrical Society of London and one on the ground of holding the certificate of the Rotunda Hospital, Dublin. The instruction of school teachers in hygiene has already been provided for in Cardiff by the Cardiff College of the University of Wales. Dr. Walford urges the desirability of a routine medical inspection of the schools and scholars in the town for the purpose of ascertaining the cause of absence from school on account of illness of teachers or of pupils, to confer with the head-teachers on the general state of health of the teachers and scholars, more particularly as to the condition of children considered to be physically or mentally weak, to exclude from school attendance children suffering from any communicable disease, and to examine all those known to have been in contact recently with a person suffering from an infectious disease. In former reports Dr. Walford has alluded to difficulties which arise in connexion with the vaccination and revaccination of "contacts" and now suggests that the sanitary authority should undertake the responsibility of securing the vaccination of those who have been exposed to infection. He also advises that some further inducements should be offered to those who submit to the operation for their own and for the public advantage.

Swansea General Hospital.

The board of management of the Swansea General Hospital has usually met with general support for that institution from the inhabitants of the district and in the last annual report it is stated that the hospital debt has been reduced during the past year from £1677 to £1084. The expenditure for the year was £7134 and the income £7882. 1471 patients were treated in the wards at an average cost of £4 17*s*. The convalescent home which was established three years ago in connexion with the hospital has been of great service, for it has taken charge of 130 patients whose earlier discharge from the hospital enabled more acute cases to be treated.

Cardiff Infirmary.

The more detailed report of the Cardiff Infirmary, which has just been issued, records an expenditure during 1904 of £13,131 and an income of £11,477. There were on an average 156 patients in the hospital daily and the average cost per occupied bed was £65, or about 8*s*. less than in the previous year. Among the 2144 patients admitted during the year 1164 were treated in the surgical wards, 303 in the medical, 428 in the ophthalmic, and 249 in the gynæcological. The question of making the out-patients pay for medicines and dressings is now being discussed by a committee of the board of management. The chairman of the board is anxious that some charge should be made and Mr. Lynn Thomas has said that people came in from the out-lying districts for 2*s*. worth of medicine and paid 2*s*. 9*d*. in railway fares, while they were quite well able to pay a local practitioner.

Adulteration of Cream of Tartar.

A grocer has recently been fined at the Caerleon police-court £10 and £4 costs for selling cream of tartar adulterated to the extent of 88 per cent., principally with gypsum.

Memorial to the late Dr. T. Gilbart Smith.

A handsome memorial has recently been erected on the highway near Sidmouth, South Devon, to the memory of the late Dr. T. Gilbart Smith. The memorial, which is of blue granite, is in the form of a seat and has the following inscription: "Thomas Gilbart Smith, a succourer of many. Thus closed a noble life spent in the service of his fellow men; he never turned his back on duty, but faithful to his motto, 'dare and do,' remained undaunted to the end. On this spot at half past 9 o'clock after watching the glorious sunset of August 3rd, 1904, Thomas Gilbart Smith, M.D., F.R.C.P., fell dead from his bicycle."

Medical Cricket Match at Bristol.

A cricket match was played on July 20th at the Gloucestershire county cricket ground, Bristol, between teams representing the medical staff of the Bristol Royal Infirmary and Bristol General Hospital and students of the Medical School. There was a large number of spectators present and after an exciting finish the students won by three runs.

July 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Physicians of Edinburgh.

A QUARTERLY meeting of the Royal College of Physicians of Edinburgh was held on July 18th, Dr. J. Playfair, the President, being in the chair. Two gentlemen were admitted to the Fellowship of the College and the Registrar reported that since the last quarterly meeting 24 persons had obtained the Licence of the College by examination. The annual statement by the governing board of the School of Medicine of the Royal Colleges indicated that the number of students during the winter session was 1122 and during the summer session 1237.—The Freeland Barbour Fellowship was awarded to Dr. Benjamin P. Watson and the Hill Pattison-Struthers Bursary in Clinical Medicine to Mr. Robert Murray Fraser. —By vote of the College a Licentiate of the College was expelled from the College and deprived of his Licence to practise, as granted by the College, and of all his rights and privileges as Licentiate.

Graduation Ceremony at the University of Glasgow.

The summer graduation ceremony at the University of Glasgow took place last week. In two cases the degree of M.D. was conferred, while of the 81 graduates who came forward for the degree of M.B., Ch.B., five took the degree "with honours" and 11 "with commendation." At the close of the ceremony Professor Murdoch Cameron delivered a brief address to the graduates. After congratulating them on the completion of their University studies and wishing them God-speed in their work he proceeded to describe the advance which had been made in the science of medicine during the last 50 years. He dealt shortly with the progress in pathology, the discovery of antisepsis and asepsis, and the advancement in hygiene and preventive medicine. In dealing with obstetrics he said: "The idea of progress is intimately associated with the elevation and improvement of the position of women and hence the importance of Queen Margaret College in preparing medical women for zenana work in India. It has been said that the state of the obstetric art in any country may be taken as a measure of the respect of its people for the female sex and this in turn may be taken as a true standard of its civilisation. Prayers for the well-being of such patients have a place in the English liturgy, but I am afraid that in Scotland many in the past have taken but little interest in such cases unless where it concerned their own fireside. I have said in the past, for within the past year there has been a movement which has been well supported. The directors of the maternity hospital are making an appeal for funds for additional buildings which when complete will form a school equipped in all its departments for the teaching of practical obstetrics and gynæcology unequalled in this country. The necessity for this will readily be recognised when it is stated that between 3000 and 4000 women each year take advantage of this hospital in its indoor and outdoor departments. Now in this movement the directors are keeping in view the needs of the University, so that the students, male and female, will have ample opportunities of gaining a thorough practical knowledge under the immediate supervision of the professor of midwifery and the physicians to the hospital. In private practice, in Scotland at least, the illiterate midwife is fast going out of date. In outlying districts the trained nurse holds an important post and forms a useful ally to the overworked country practitioner. Remoter districts in Scotland are being supplied with cottage nurses and the demand in the

Highlands for women holding midwifery certificates is very great owing to the long distances from medical men. It will readily be understood that both rich and poor are alike interested in this work, the importance of which has hitherto never been sufficiently recognised. Outside of students and nurses trained in the Maternity Hospital only those who have been identified with its management have any idea of how quietly the work has been carried on or can form the slightest idea of what a blessing such an institution is to the poor in our populous districts, or how necessary it is for the reception of serious cases which come from the town and country districts of the whole west of Scotland. Building operations have already commenced and it is hoped that before it is finished the directors will be in a position to open it free of debt. Generous donors have already given £40,000 but as much more will be required. It is confidently expected that a generous public will relieve the directors of their financial responsibility. In about two years it should be finished and it is to be hoped that some of you will return to compare notes of the old with the new or become house surgeons and so obtain an experience such as no other hospital can offer. There is a maxim that a large and healthy population is the life and strength of a nation and the source of its strength in art, agriculture, and commerce. Our pride for many years has been our great empire and the aim of our legislators is how to consolidate it. It would be well if they could realise that in our large cities, and even our country towns, there are agencies stealthily at work in the ill-ventilated and overcrowded dwellings which generate disease in one form or other that carry off about one-fourth of the children within the first five years of life. Any careful observer cannot but be impressed with the fact that most of this mortality is due to causes that might be prevented. Diminish intemperance and improve the habits of the people and not only will the death-rate be lessened but mothers will be so improved in health that there will be a disappearance of the antenatal causes that are responsible for the vast number of sickly infants who die before they reach two years of age. We are too apt to look upon such conditions as unavoidable, but if greater care was bestowed upon the mother and her offspring much disease and misery would be prevented. There are very few women who, when married, have much knowledge of children, unless they have had special opportunities of learning, and these form the exception. However highly a woman has been educated she is generally entirely ignorant of maternal duties. Much suffering and injury are the result and this more from ignorance than carelessness. A great agitation is made from time to time about conscription for the safety of our land. It would be wiser to introduce conscription for domestic service amongst girls for the safety, well-being, and happiness of the home. The danger that threatens our country is to be found on the hearth and not on the coast."

The Carnegie Trust for the Universities of Scotland.

The executive committee of the Carnegie Trust has published the list of awards under the research scheme for the year 1905-06. There have been granted in all 16 research fellowships, 28 research scholarships, and 40 research grants, representing an outlay of close on £7000.

July 25th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

The Sanitary Condition of Newtownards.

THE medical inspector of the Local Government Board has in a report to his chiefs pointed out that both the water-supply and the drainage of the district are defective. He recommends further that the Newtownards, Bangor urban, and Newtownards rural district council should take into consideration the advisability of providing an infectious diseases hospital, as the workhouse fever hospital is not sufficient for the districts.

Portadown and Banbridge Water supply.

The money required for the carrying out of this scheme—amounting to £70,000—has all been subscribed, the security to the lenders being the combined rates of both towns.

Maternity Nurses in Derry.

Two of the dispensary medical officers of Derry have urged the Derry Poor-law guardians to appoint two additional maternity nurses for the city district. During the past year the present nurse has attended 215 cases, and in order to give the necessary attention to each case and not to overwork the nurse each nurse should not be asked to attend more than 50 cases in the year. The matter is to be considered fully by the guardians. It is clear that more maternity nurses are urgently required.

Salaries of Dispensary Medical Officers.

Mr. J. F. Mitchell (Bangor) and Dr. R. Henry (Comber) appeared before the Newtownards guardians on July 22nd on behalf of the medical officers of each dispensary district in the union, to ask the guardians to reconsider the question of their salaries. The matter is to come up again for reconsideration in a month.

July 26th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Spinal Contusions and the Workmen's Compensation Act.

AT a meeting of the Society of Legal Medicine held on July 10th the following case came up for discussion. It was that of a man whose work involved the carrying of large bundles of waste paper. In the course of this employment he bruised his lumbar region and was thereupon afflicted with neuralgia so that he had to take to his bed. Before he was quite well he went back to work and his foot slipping he jarred one of his legs sharply and immediately felt a violent pain in the right groin. The next thing was that his right leg became paralysed, he suffered from pains in the course of the anterior crural nerve, besides exhibiting an anæsthetic patch corresponding to the distribution of the internal saphenous nerve. An action was brought before the Tribunal of Rouen and the court summoned Dr. Laurent to answer the following questions:—1. What is the nature of the injury? 2. Is it of such a kind as to bring about a temporary incapacity for work? 3. What will be the probable duration of such incapacity? Dr. Laurent gave it as his opinion that the man had got traumatic neuritis of the cauda equina and that this had brought on incapacity for work which would last about three or four weeks. The court gave judgment in accordance with Dr. Laurent's evidence. These cases are interesting as they may be diagnosed as hysterical or as cases of simple malingering.

Death Vacancies and the Law.

A trial concerning the above question has recently taken place. The transfer of a medical practice is not legally valid unless the vendor transfers to the buyer negotiable objects such as instruments, books, or furniture coincidently with the transfer of the patients. But the main point for decision in the trial to which I refer was whether such sale is valid when made by the widow or the heirs of the deceased. In this case the widow of a medical man had sold to another medical man her late husband's practice, with the right of occupation of the premises (*cession de location*). She also sold the books, furniture, and instruments and promised to introduce the buyer to the patients. The buyer, however, refused to execute the contract signed by him, alleging that it was null, and the widow therefore brought an action for damages against him. The Civil Tribunal of Saint-Brieuc, holding that the essentials of the sale of a practice—namely, introduction to the patients and the handing over of patients actually under treatment—could not be carried out by the widow of the practitioner, non-suited her. But the Rennes Court of Appeal reversed this decision, holding that the sale of the practice, together with the sale of books, furniture, and instruments, and the promise of introduction, constituted a transfer of negotiable goods. The court also held that these various elements made up a portion of the patrimony of the deceased and that they could be validly handed over by the widow and the heirs.

Pulmonary Gangrene caused by a Foreign Body in the Bronchus.

At the meeting of the Society of Internal Medicine held on July 3rd M. Fränkel related the case of a man who had come under his care in February and who then exhibited all the signs of a diffuse infiltration of the whole of the lower lobe of the right lung. The patient gave the following

history. In August, 1904, he had "swallowed" a small piece of chicken bone, which passed into his respiratory tract. M. Fränkel could not, however, be sure of his diagnosis, for the patient had an anal fistula and his sputum contained Koch's bacilli, so that all the symptoms might have been due to tuberculosis. M. Fränkel asked the patient to submit to bronchoscopy but he refused until some days later when his condition had become desperate. It was then seen that the lung had become gangrenous owing to the foreign body. No intervention was possible for there was no localised focus of disease, the whole lung being riddled with small gangrenous abscesses. The patient died within a few days and M. Fränkel added that he had brought the case to the notice of the society to insist upon the necessity for practising bronchoscopy in all cases of foreign body in the air passages at as early a date as possible. After the foreign body had been imbedded in the air passages for months bronchoscopy was of no avail.

Persistent Hiccough cured by Suggestion.

At the annual meeting of the Society of Hypnology and Psychology, held on June 20th, M. Feuillade related the case of a little girl who, after being frightened, developed a hysterical hiccough which was treated for the space of one month by various means without result. The hiccough persisted during the day but ceased during sleep. The child, whose age was ten and a half years, got very thin and anæmic and refused her food. Her attention was extremely difficult to fix but after the second sitting at which suggestion was practised she ceased to make a noise when she hiccoughed and the only sign of the complaint was a visible and painful contraction of the epigastrium. After the sixteenth sitting, this being the first in which she was really put to sleep, the hiccough ceased entirely. One month later the hiccough returned after the child had been frightened again but a single sitting caused it to disappear.

Pseudo-Appendicitis.

M. de Nittis read a paper on the above subject before the Academy of Medicine on July 12th. He allowed that true appendicitis was far from uncommon but pseudo-appendicitis must also be taken into consideration. The diagnosis of appendicitis was often made under the influence of a kind of preoccupation; cases of floating kidney with pyelitis or of salpingitis were often sent to surgeons as appendicitis, but the reverse mistake hardly ever happened. In the second place—and this was the point upon which he wished to insist—certain affections of the alimentary tract, especially dilatation of the stomach with enteritis, gave exactly the symptoms of appendicitis—even the pain over McBurney's point. In such cases the surgeon might well think that he had to deal with an appendicitis, but in fact the symptoms were due to trouble elsewere, and this trouble could be removed by careful treatment, whereas operation was useless.

The Clinical Examination of Respiratory Chemical Exchange.

At the meeting of the Academy of Medicine, held on July 11th, M. Albert Robin read a most interesting paper upon the above subject. He also showed a simple and ingenious apparatus by means of which, after a little practice, any medical man can easily measure the respiratory coefficient and can, moreover, estimate the respiratory exchange in his patient and thereby deduce a rational method of treatment. A small gauge permits the observer to estimate the inspiratory and expiratory pressures, while by the aid of a three-way cock the expired air can be collected in an indiarubber bag so as easily to be analysed. M. Robin draws the following conclusions from his researches. In cases of very early tuberculosis a marked increase is observed in the figures for the absorption of oxygen and for the elimination of carbon dioxide. A marked decrease in the respiratory exchange is noted in the case of arthritic patients. In the descendants of these two morbid types the same facts may be noted in at least two-thirds of the cases. The above-mentioned types of respiratory exchange will help in distinguishing tuberculous pleurisies (with augmented exchange) from non-tuberculous pleurisies (with diminished or normal exchange). In cases of ascites when the peritoneal cavity is at its maximum of distension the increase in the exchange is very marked, especially from the point of view of carbon dioxide elimination. After tapping the exchange diminishes rapidly in from 24 to 48 hours. In tuberculous cases the best effects of a raw meat diet are seen when the amount given is between 100 and 150 grammes. Above this amount the figure for the carbon dioxide eliminated increases rapidly. The same holds good for eggs if more than four to six are given. Gelatin if given in doses of 30 grammes per diem rapidly lessens the amount of exchange. Bleeding increases the exchange markedly and is therefore a valuable method of aiding oxidation. Arrhenal given in a dose of five centigrammes per diem diminishes by one quarter the respiratory exchange, but if ten centigrammes are given the exchange is increased by one-tenth. Other arsenical preparations show the same phenomena. The study of the respiratory exchange is thus able to serve as an indication for the dosage of certain drugs.

July 24th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

A New Local Anæsthetic.

Dr. E. Impens of Elberfeld, writing to the *Deutsche Medicinische Wochenschrift*, has given a preliminary account of a new anæsthetic compound termed "alypin." It is the hydrochlorate of benzoyltetramethyldiaminoethyldimethylcarbinol. It is soluble in water, the solutions being of neutral reaction, and it may be sterilised by boiling without prejudice to the anæsthetic action. Alypin is easily absorbed by the mucous membranes and the subcutaneous tissue. The absorption of injected solutions is very prompt and necrotic changes in the neighbourhood of the injection have never been observed. The rapid absorption of the substance favours its anæsthetic action which equals and even excels that of cocaine, as solutions of alypin are efficacious when diluted to a degree at which cocaine becomes inactive. For rabbits a solution of 0·005 per cent. strength produced anæsthesia of the cornea, whilst a solution of cocaine of 0·01 per cent. strength had no effect. In the human eye the administration of a 0·025 solution of alypin produced a decrease of the sensibility of the cornea; with a 0·05 solution the corneal reflex disappeared; and with solutions of a strength from 1 to 2 per cent. complete anæsthesia of the cornea occurred within 60 or 75 seconds. The anæsthesia, like that produced by cocaine, lasts from eight to ten minutes but it differs remarkably from cocaine in this respect, that neither mydriasis nor disturbance of accommodation occurs. The eye, after the anæsthesia has passed off, is in its ordinary condition, not being affected in any way. Moreover, alypin is much less toxic than cocaine, the lethal dose for dogs and cats being twice that of cocaine. With regard to the action of the substance on the respiration and circulation the article states that the small doses which are used in practice have no toxic action; after local application as well as after subcutaneous administration the blood-vessels are dilated, whilst in animals larger doses diminish the blood pressure and the pulse rate. Other physical functions, such as secretion of urine, metabolism, and the body temperature, are not affected at all. Albumin was never observed in the urine. The blood undergoes no modification. Alypin has a slight paralysing action on protoplasm; a solution of 4 per cent. strength applied to a nerve destroys the reaction of the nerve against irritation, whilst the transmission of the nerve impulse is unimpeded. Alypin is excreted through the kidney as the presence of a base may be ascertained in the urine by means of an iodised solution of potassium iodide. The general results obtained by Dr. Impens are to the effect that alypin is an anæsthetic compound of neutral reaction, easily soluble, of the same action as cocaine but without its toxic symptoms, and producing neither mydriasis nor interference with accommodation. It is for these reasons superior also to stovain which has an acid reaction, is not soluble, and is less energetic than cocaine, whilst mydriasis is produced by its administration.

Hygiene of Health Resorts.

A remarkable collective investigation is to be carried out on behalf of the committee of the Berlin Practitioners' Association. Its joint committee (*Geschäftsausschuss der Berliner Standes-Vereine*) at the beginning of the excursion season this year sent to the members of the association a circular in which they were asked to investigate the hygienic condition of any health resort, spa, or other place where they might happen to spend their summer holidays. For that purpose they were provided with a blank form containing queries

on the following subjects: number of resident medical men and of pharmacies; condition of the drinking water, condition of the sewers, street cleaning, and fire protection; hospitals (number of beds, wards for infectious diseases), apparatus for disinfection, nursing, and transport of sick, injured, and invalids; first aid; hygienic condition of the baths; hygiene of food, especially of milk; slaughter houses; notification of infectious diseases; and occurrence of epidemics. Undoubtedly the committee is well advised in taking this step, for the hygienic condition of many of the watering places, health resorts, and other summer quarters is far from being satisfactory. It would be injudicious for local practitioners to embroil themselves with the local authorities and they are often unable to improve matters, as their practices would suffer in consequence of persistent attempts at carrying out reforms unwelcome to certain classes of the population. Investigations by independent medical men are therefore advisable.

July 24th.

SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Enuresis.

AT a meeting of the Medical Society of Zürich held on June 24th Dr. Theodore Zangger read a paper on the Treatment of Functional Enuresis. He said that the prevalence of this distressing condition was much greater than was commonly supposed and that the observations of medical officers of schools in combination with those of the teachers in public schools might perhaps supply trustworthy statistics. The little sufferers were for the most part treated injudiciously and harshly or even cruelly by parents, relatives, and teachers. General nervousness was thereby increased in these children who almost all came from a nervous stock and mental disease might even be engendered. Purely medicinal treatment was not very efficacious, belladonna and rhus standing in the foreground. Hygienic and educational methods came first in order of usefulness and faradisation of the bladder has proved most useful, but the treatment must be continued for many weeks or even months and relapses often occurred. Cauterisation of the neck of the bladder or intra-urethral application of faradic currents at the same spot often acted well but as these methods must remain in the hands of specialists any new methods applicable in general practice must be welcomed. Dr. Zangger has been very well satisfied with the results of bimanual massage of the neck of the bladder, one finger working from the rectum. In young children half a dozen applications of massage for a period ranging from three to five minutes once or twice a week were followed by recovery. Dr. Zangger gave full details of five cases of long standing in which all other therapeutic measures had failed, the ages of the patients varying from 11 to 17 years. Massage repeated from 12 to 20 times proved successful in all cases but one, this patient being the subject of serious mental deficiency, and even in this case a great improvement was obtained.

The Treatment of Pseudarthrosis.

A short time ago Professor Bier of Bonn recommended injection of human blood into the neighbourhood of fractures in which bony union could not be obtained and he reported ten cases successfully treated in this way. Dr. Lauper of Interlaken has published a report of two cases, in one of which a woman, aged 71 years, sustained a fracture of the tibia and fibula on Oct. 10th, 1904, and the bones had not united by February, 1905. Dr. Lauper gave injections of 35 or 40 cubic centimetres of blood in the region of the fracture. The blood was obtained by venesection from a healthy man, defibrinated, and injected with antiseptic precautions on Feb. 3rd, 10th, and 17th. Consolidation was noted after eight days; after five weeks the patient could walk about again and has done so ever since. A case occurring in a man, aged 44 years, was treated with injections of the patient's own blood and excellent results were obtained. This operation, therefore, seems deserving of further trial.

Medical Students at the Swiss Universities.

This summer 1679 students were registered at the five Swiss medical faculties—an increase of 146 as compared with the summer of 1904. Only 556 were of Swiss nationality, 1123 being foreigners; as usual, the proportion of females was very large, their actual number being 817. The total numbers at the several universities were as follows: at Basle, 149; at Bern, 554, including 330 females; at Geneva, 285, including 132 females; at Lausanne, 306, including 209 females; and at Zürich, 385, including 165 females.

Zürich, July 24th.

ITALY.

(FROM OUR OWN CORRESPONDENT.)

The Red Cross in the Malarious Districts.

FOR some 12 years the Italian Red Cross has been extending its original sphere of usefulness and now includes in its salutary intervention not only the wounded in war but also the sufferers from disease, endemic or epidemic. In the summer season, for instance, the Roman Campagna is prolific in cases of malarial poisoning and for the treatment of these, as well as by way of prophylaxis, it has established seven "*stazioni sanitarie*" mainly for the purpose of applying quinine, hypodermically and per os, for prevention and cure. In the month of June 8031 individuals came under such treatment, all with results satisfactory on the whole with the exception of 168 persons who either refused to take the quinine prophylactically or who could be prevailed upon to take it only in insufficient quantity. In addition to these there were under Red Cross treatment 115 cases suffering from various non-malarial disorders. Of the patients who had to be conveyed to Rome for further treatment in hospital there were 36, of whom ten were carried by rail and 26 by the ambulances of the Red Cross or, failing these, by the next best vehicles.

The Sixth International Congress of Criminal Anthropology.

The fifth of these Congresses was held in 1901 at Amsterdam and at its close it was moved and carried, *nemine contradicente*, that the sixth should have its seat at Turin. In the Piedmontese capital, accordingly, an organising committee has just been formed to make the necessary arrangements. That committee, on which the local magistracy, the leaders of the medical and juridical faculties, and others of the Senatus Academicus were represented, has decided that the Congress shall take place on April 26th next. The committee came to a further decision—namely, to reinforce its membership with others of the medical and legal professions drawn from the English-speaking world as well as from the continent and to nominate as president his Excellency Signor Bianchi, Minister of Public Instruction, who will open the Congress with an address. In connexion with the Congress there will be an exposition of criminal anthropology which, *inter alia*, will include all the instruments and apparatus for the diagnosis of the physical malformations (craniological and other) favouring or conditioning the tendency to crime, as well as the various means for detecting criminal acts. Further arrangements for the division of the procedure into sections, with the subjects to be dealt with and discussed in each, will be made public at an early date, so as to insure the success of a Congress which bids fair to be not less instructive theoretically and practically than any of its five predecessors.

July 20th.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Specialists' Pay for Military Medical Officers.

THE Government of India has issued a notice with reference to specialists' pay for officers of the Royal Army Medical Corps and the Indian Medical Service. This pay is an allowance to officers below the rank of lieutenant-colonel for special sanitary or medical work done for the State which it is not in the power of an ordinary medical officer to perform with the same efficiency as a specialist. It will not be a personal allowance but will be granted only to incumbents of certain specified appointments. Specialists' pay will not be given to officers of the Indian Medical Service in civil employ so that this concession is solely for the benefit of military medical officers. The services of the specialists are to be absolutely at the disposal of the Government in any way that it may direct without further claim for

remuneration. The duties of all specialist appointments must be carried out in addition to ordinary hospital duties. The pay of all specialists for this extra work will be the same—viz., Rs.60 a month. Officers of the Royal Army Medical Corps in India will be eligible as specialists under the qualifications laid down by the Army Council for the Royal Army Medical Corps and the eligibility of an officer of the Indian Medical Service will be decided by the Director-General. An officer may qualify as a specialist at any period of his service. There will be 105 appointments in India—55 going to the Royal Army Medical Corps and 50 to the Indian Medical Service officers in military employ. Finally, the order says that selections for appointments will be made under the orders of His Excellency the Commander-in-Chief. It is obvious from these new rules that the status of a specialist is not held in very high esteem and except for the desire of special study there is little inducement for an officer to seek these appointments.

The Declining Plague Mortality.

The figures of plague mortality have ceased for the present to excite much interest. The decline is general and for the week ending June 24th only 4563 deaths were recorded, of which the Punjab returned 3663, the United Provinces 151, Bombay city 112, Bombay province 253, Calcutta 25, Bengal 137, and Burma 93.

Sanitary Report for Assam.

The sanitary report for the province of Assam during the year 1904 shows that the death-rate (25·85) was low and compares very favourably with the average of the previous five years. The birth-rate was 35·5 and exceeded the death-rate in all districts. The registration of both births and deaths, however, is very defective in Assam. It is curious to note that the birth-rate in rural areas is 6 per 1000 higher than that in the towns. The death-rate from cholera among immigrant tea coolies was the lowest on record but is partly explained by the diminished numbers. The curious disease kala-azar seems to be declining but as the diagnosis is so doubtful little reliance can be placed on the published figures and officers deputed to inquire into this disease show that it is more prevalent than appears. It is not now so decidedly epidemic but occurs in chronic and less strongly marked cases or in isolated cases of more acute type. In the tea gardens diarrhœa and dysentery seem to be particularly prevalent and cause a high mortality which is partly attributed to the complete change of diet which the coolies experience on going to Assam. In Sylhet there is a curious custom followed by the Mussulman community of burying their dead within the house compound. This has been stopped at last by the Chief Commissioner using the special powers given to him under the Act of 1897. A Mussulman cemetery has been provided.

The Calcutta Hospitals.

The report on Bengal charitable dispensaries shows that at the Medical College Hospital in Calcutta important additions and improvements have been made, that the antiquated Campbell Hospital is under reconstruction, and that a large scheme for remodelling the Howrah General Hospital has been sanctioned. The number of in-patients has fallen off in Calcutta, notwithstanding the rapid growth of the population, the admissions of men being less than those of 12 years ago. Women, however, go to the hospitals in much larger numbers. The financial figures are extraordinary. The receipts are contributed to the extent of 75 per cent. by Government and Rs.92,877 were paid by patients. Private subscriptions amounted to less than £1000 and it is remarked that the amount contributed by private liberality is deplorably small and the receipts under this head were actually less than they were 20 years previously.

July 7th.

Obituary.

CHARLES HOOPER, M.R.C.S. ENG., L.S.A.,

CONSULTING SURGEON, ROYAL BUCKINGHAMSHIRE HOSPITAL.

Mr. Charles Hooper died at Aylesbury on July 16th at the age of 75 years, after an illness, bravely borne, lasting ten weeks caused by pneumonia complicated with hydrothorax and later with empyema. He was born at Buntingford, where his father, Dr. John Hooper, was in practice. His professional education was obtained in King's College, London, and he took the diplomas of L.S.A. and M.R.C.S. Eng. in 1852 and 1853 respectively. He first went to Aylesbury as house surgeon to the present Royal Buckinghamshire Hospital (then called the Buckinghamshire Infirmary) and soon succeeded to the practice of Mr. Henry Hayward, and at the time of his death had been in private practice for upwards of 50 years. Mr. Hooper always took a keen interest in his profession and was especially attentive to his poorer patients. He held the post of medical officer of health to the Aylesbury urban district council for many years and was for nearly 50 years medical officer for No. 1 District of the Aylesbury union and public vaccinator. For many years he was one of the honorary surgeons to the Royal Buckinghamshire Hospital and was also local secretary to Epsom College, chairman of the Aylesbury division of the South Midland branch of the British Medical Association, and an Associate of the Sanitary Institute. He acted as churchwarden to the parish church for many years; he was also a school manager and trustee of several charities and the oldest Freemason of his lodge. A man of upright character and a very hard worker, never sparing himself, he, in fact, died in harness.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. James Thorburn, formerly professor of therapeutics and pharmacology in Toronto.—Dr. Du Castel of the Academy of Medicine and physician to the hospitals of Paris.—Dr. Michael Krasin, lecturer in surgery in the University of Kazan.—Dr. Alfred Bidder, formerly director of the Britz Hospital, near Berlin, and author of numerous papers on surgical subjects.—Dr. Johann Latschenberger, *privat-docent* in the medical school and professor of physiology in the Veterinary School, Vienna.—Dr. Philipp Schech, extraordinary professor of laryngology with charge of the throat clinic in the University of Munich, at the age of 59 years.—Dr. Friedrich Fischer, of the Strasburg municipal hospitals, after a protracted illness, at the age of 49 years.—Dr. Moussous, formerly professor of clinical midwifery in the University of Bordeaux.

RUSSIAN UNIVERSITY PROFESSORS TO BE ELECTED.—According to the Odessa *Novosti* in the projected new university statutes the principle of election will be the basis of university life. It is proposed that candidates for chairs shall be elected by the existing professors. It is also suggested that those who read treatises to qualify for professorships shall likewise be subject to the ballot of their university colleagues. It is added, however, that, after all, the professors' selection will be subject to the approval of the Government, so that the appearance of liberalism is only an appearance.

AUGUST BANK HOLIDAY ON THE CONTINENT.—Cheap tickets available for eight days will be issued to Brussels on August 2nd to 5th, inclusive, and August 7th. Cheap tickets available for seven days will be issued to Liége, for its exhibition, *via* Harwich and Antwerp. Dining and breakfast cars are run between London and Parkeston Quay, Harwich, on the Antwerp service. Passengers leaving London in the evening reach Brussels next morning and Liége at noon after a comfortable night's rest on board the steamer. For visiting the Hague, the Rhine, North and South Germany, and Basle for Switzerland, special facilities are offered *via* the Great Eastern Railway Company's Royal British Mail Harwich-Hook of Holland route. A corridor train with vestibule carriages, dining and breakfast cars, is run on the Hook of Holland service between London and Harwich. From the Hook of Holland through carriages and restaurant cars are run in the North and South German express trains to Cologne, Basle, and Berlin, reaching Cologne at noon and Basle and Berlin in the evening. For the convenience of passengers tickets dated in advance can be obtained at the Liverpool-street Station Continental Enquiry Office. The Royal Danish Mail steamers of Det forenede Dampskibs Selskab of Copenhagen will leave Harwich for Esbjerg (on the West coast of Denmark) on August 3rd and 5th, returning on August 8th and 9th. The General Steam Navigation Company's steamers will leave Harwich on August 2nd and 5th for Hamburg, returning on August 6th and 9th.

THE BRITISH MEDICAL ASSOCIATION.

MEETING AT LEICESTER.

THE seventy-third annual meeting of the British Medical Association commenced at Leicester on Monday last, July 24th, this being the first occasion on which the Association has met in that town. It is also the first occasion, we believe, on which the Association has found it necessary to commence its formal business on the Monday of assembly instead of on the next day, the large amount of work to be got through by the representatives necessitating the making an earlier start than usual if the programme was to be completed during the week.

A glance at the meeting of Representatives in the Association Hall in Granby-street on Monday afternoon, the floor space of which was covered with small tables with writing materials at which were seated some 150 representatives of branches, all apparently fully absorbed in the business in hand and making notes of the proceedings, furnished a striking contrast between the present-day method of conducting the business of the Association and that which formerly prevailed. The new constitution has in this matter evolved order out of chaos and it is not any longer possible for the clamorous minority to vote over the heads of the less assertive majority—an obvious advantage to the usefulness of the Association and to the furtherance of its legitimate work. That the representatives were not assembled for a "picnic" was evidenced by the many hours' work that they got through, sitting continuously from 2 to 10, with a short interval for dinner.

Leicester is a busy and a thriving town—a fact which is evidenced by the crowded streets and the constant stream of vehicular traffic through them. The noise of the streets is very marked and the greater portion of it is due to the electric trams, the number of cars run being apparently quite in excess of requirements. These start in the early hours of the morning and do not cease running until near midnight and the din caused by them is very wearying, but on the other hand the fact that they are not overcrowded, as London omnibuses and tram-cars so often are, adds greatly to their convenience.

It is not difficult for the stranger to guess what are the chief industries of Leicester, if he did not know them, as on all sides are hosiery and boot factories, with their tall chimneys pouring forth black smoke at intervals.

The population is upwards of 200,000 and the corporation consists of a mayor, 16 aldermen, and 48 councillors. The administration is a striking instance of the municipal acquirement of such undertakings as gas, electric and water supplies, sewage disposal, and tramways. There are excellent open-air spaces provided in Leicester and no less than four sets of public swimming baths exist in the borough, one installation in particular having cost £50,000.

The water-supply is admittedly limited in quantity; in fact, there is grave anxiety about it as the needs of the town so rapidly grow, though in quality it appears to be satisfactory. The public supply is obtained from Charnwood Forest but it is hoped shortly to supplement this by a scheme providing for a supply from the Derwent Valley. The sewage output is dealt with chiefly by surface irrigation but considerable money is being spent on the adoption here and there of bacteriological processes.

The annual exhibition is being held in the Drill Hall and Magazine-square in "the Newarke." The technical and art schools, too, are situated in the Newarke, a kind of square of walls and watch towers, and as the sectional meetings are held there the exhibition is conveniently situated for the members who attended the reading of scientific papers. Adjoining the drill hall is a marquee in which motor-cars are exhibited as well as some sanitary appliances and a few exhibits of a miscellaneous character. The exhibition is on a decidedly smaller scale than last year and on the whole less interesting. Aseptic furniture is, perhaps, the most prominent feature of the exhibition, relatively more space being devoted to this class of exhibit than on previous occasions, although there are several exhibits demonstrating distinct advances in x ray work and high-frequency apparatus. In another column we commence a detailed account of the more important exhibits.

The annual general meeting was held in the hall of the Young Men's Christian Association on Monday, at 2 P.M., Dr. William Collier, the President, being in the chair. The sole business before the meeting was the confirmation of the minutes of the last meeting held at Oxford. These minutes were taken as read and there being no opposition were duly signed by the President. The meeting then adjourned until Tuesday and the representative meeting commenced.

The adjourned general meeting was held at 2 P.M. on Tuesday, when the first business was the installation of the President-elect. The outgoing President, Dr. Collier, after a brief speech in which he referred to the principal events which had occurred in connexion with the Association during the past year, introduced his successor, Mr. George Cooper Franklin, F.R.C.S. Eng. Dr. Collier then retired and Mr. Franklin, the new President, took the chair. A vote of thanks was passed to the retiring President and, in accordance with the usual custom, he was elected a Vice-President of the Association for life. Under By-law 37, which provides that a treasurer shall be elected by the annual general meeting and shall hold office for three years, Dr. Edward Markham Skerritt retired and Dr. H. Radcliffe Crocker was elected treasurer in his place. A vote of thanks was passed to Dr. Skerritt and he was elected a Vice-President for life.

A recommendation of the Council that a sum of £300 should be voted to the office staff superannuation fund was unanimously adopted and after the appointment of the auditors the meeting adjourned until 8.30 P.M.

At the adjourned meeting, which was held in the Royal Opera House, the President being in the chair, the proceedings were opened by the Mayor of Leicester (Mr. Councillor Hilton) offering a welcome to the Association in the name of the corporation of Leicester. Dr. Astley V. Clarke, one of the honorary secretaries of the executive committee, then introduced the guests and the colonial delegates. Among the former were Professor Hartmann, Paris; Professor Bergheim, Vienna; Professor Czermak, New York; Professor Karl Hesse, Würzburg; Dr. Boyd, New York; Dr. L. A. Thomas, Iowa; and Dr. Charles O'Reilly, Toronto. The Colonial delegates were many and came from nearly all parts of the Empire—the West Indies, Ceylon, India, Malaya, China, Canada, Natal, and Australia. The President having received the guests and delegates then said that his next duty was the very pleasant one of presenting to Sir Constantine Holman and to Mr. Andrew Clark the

gold medal of the Association. He alluded to Sir Constantine Holman's long term of service to the profession in connexion with the Surrey Medical Benevolent Society and Epsom College, as well as to his work for the Association. In referring to Mr. Andrew Clark, the President recalled the fact that he had just resigned the office of chairman of council. Both recipients of the medal having replied, the President next announced that the Stewart Prize was presented to Mr. W. H. Power, medical officer of the Local Government Board, who was unfortunately prevented from being present. This concluded the business of the adjourned general meeting and the President of the Association then gave his address which will be found at p. 267.

The sections, which were 12 in number this year, were all conveniently located under one roof in the technical schools in the Newarke, to the great advantage of all concerned. It was unfortunate that the representative meeting was still in session on Wednesday morning when the sections were at work, as this duality of business kept many representatives away from the sections. The representatives have certainly worked exceedingly hard this year and there is likely to be an agitation for an "eight-hours day" before the date of the next annual meeting.

Dr. H. W. Langley Browne has been elected chairman of the Council for the ensuing three years in the place of Mr. Andrew Clark, whose term of office has expired. The members of the Council at their meeting on Tuesday expressed their thanks to Mr. Clark for the able manner in which he had presided over their deliberations during his period of office.

A church service has for many years past been a feature of the Association meeting and heretofore it has been called the "opening" service and has taken place on the Tuesday morning at about the usual hour for matins in this country. The relegation of the service this year to five o'clock on the Tuesday afternoon rendered it a somewhat meaningless function, and it was not surprising, therefore, that the attendance showed a falling off. The service took place in St. Martin's Church, the Bishop of the recently created diocese of Birmingham (Dr. Gore) being the preacher. So eminent a thinker should have obtained a larger audience for his exposition of the relationship between the clerical and the medical professions. The collection was, as usual, for division between the British Medical Benevolent Fund and Epsom College. A service was also held at the same time at Holy Cross Roman Catholic Church.

At the adjourned general meeting held in the Temperance Hall at 2 P.M. on Wednesday, the President announced that the Council had received an invitation from the Toronto branch of the Association, conveyed by Professor I. H. Cameron, to meet in Toronto next year. The Council recommended that this invitation should be accepted, a view which was adopted by the meeting. The nomination of the President-elect was, subject to the approval of the Toronto branch, left in the hands of the Council. This concluded the business of the meeting and the President then called upon Dr. Henry Maudsley to deliver the Address in Medicine, which will be found at p. 271.

We must again express our thanks to Mr. Guy Elliston, the general secretary of the Association, for much courtesy and help afforded to the representatives of THE LANCET in various directions.

THE SECTIONS.

MEDICINE.

WEDNESDAY, JULY 26TH.

THE section met under the presidency of Dr. FRANK M. POPE and Sir LAUDER BRUNTON (London) opened a discussion on

The Treatment of Sleeplessness and Pain.

He said that it was not very easy to give a correct and complete definition of sleep, so as to differentiate it entirely from the conditions of coma, delirium, active dreaming, and somnambulism. The subject might be roughly said to be insensible to ordinary external stimuli, when these were not too severe. The state depended partly on the condition of the brain cells and partly on the circulation. The brain cells might be kept active and sleep be prevented by stimulants to the brain itself, such as psychical impressions, worry, anxiety, eagerness, and anticipation, very pleasurable and very painful. Pain had probably a double action, increasing the activity both of the cerebral cells and of the circulation through the brain. Excessive heat or cold to the surface might have a similar action, as well as distension of the stomach or intestines by flatulence, or irritation by excessive acidity in the stomach, or irritant substances in the intestines. Both the circulation and the nerve cells might be influenced by leucomaines formed in the body or taken from without, such as the active principles of tea or coffee. The circulation might be stimulated by over-action of the heart through heat, excitement, drugs (such as tobacco), or by high tension in cases of gout. Rigidity of the arteries leading to the brain might also lead to sleeplessness. The treatment consisted in the removal of the cause if possible or in counteracting the abnormal condition either of the brain cells or of the circulation. As special remedies he mentioned small doses of potassium iodide in combination with massage when the carotids were tense, bathing and rubbing the feet in cold water when coldness of the extremities was associated with sleeplessness, warm bathing or sponging when the skin was dry, the administration of from ten to 30 grains of bicarbonate of soda in gastric acidity, emptying a full stomach or replenishing an empty one with warm food, employing wet pack, cold affusion or hot water sponging in fever followed by exposing the imperfectly dried body covered with a "cradle" and sheet over so as to allow a continuous draught. He recommended the avoidance of nerve stimuli resembling the products of nitrogenous waste and suggested lactic acid and urethane. Chloral depressed the heart and lowered tension and was especially useful in cases of high tension. The same was true of all the chlorine substitution products. On the other hand, the sulphur products, with alcohol, sulphonal, trional, and tetronal, were free from this depressing effect. Valerian, also, was useful in reducing restlessness. The sensation of pain had its own seat in the cerebrum, but it was usually excited by peripheral irritation affecting either nerve ends, nerve trunks, or the spinal cord. There were many varieties of pain—burning, shooting, stabbing, grinding, gnawing, &c. The causes might be peripheral or central. Sensibility to pain varied greatly in different people and in the same person at different times. The treatment of pain consisted in removing irritation or lessening sensibility in nerves, spinal cord, or cerebral centre. The methods of doing this were numerous, and included mental impression, mechanical removal of irritation, neutralisation of chemical irritants, and alterations in nerves and nerve centres by drugs, massage, vibration, and electricity. As particular suggestions in the treatment of pain he pointed out that it was better to administer opium or its derivatives in glycerine by the rectum than to trust to its absorption in a full stomach. He suggested bicarbonate of soda solution with laudanum as an efficient application to an aching hollow tooth or even rinsing the mouth with soda solution to neutralise acidity. Opium followed by chloroform inhalation was the best remedy for hepatic colic, and in angina pectoris morphine in combination with amyl nitriteor nitro glycerine. Headache was best treated by salicylate of soda in combination with potassii bromidum taken overnight or early in the morning. Antipyretic drugs such as phenacetin and antipyrin appeared to lessen pain by causing diffusion of impulses in the spinal cord.

Professor CUSHNY contended that the damage from lack of sleep was greater than that from the use of narcotics, which helped, occasionally administered, to break a vicious

circle. Unfortunately, their action was uncertain in degree and time and liable to be attended by excitement. Chloral, one of the best, was introduced in 1869 and others of the chlorine class followed, such as isopral and chloretone. They all depressed the heart and just as surgeons had left chloroform for ether so physicians had turned from the chlorine narcotics to those derived from alcohol, such as paraldehyde and amylene, as being safer though less certain in action. Of the urea compounds, urethane was weak and hedonal required a large dose. Veronal was probably the best in 5-15-grain doses. There were obvious objections to the older vegetable hypnotics, opium and morphine, and the belladonna alkaloids were capricious in action and accompanied by objectionable side effects. He preferred to use racemic hyoscine in combination with bromides.

Sir WILLIAM BROADBENT (London) recommended that before employing hypnotics an attempt should be made to identify the cause of sleeplessness. Disordered digestion was commonly the cause of awaking during the night, while anxiety prevented the first sleep. Anything displacing a little gas from the stomach gave relief, even water, without going to the extreme of emetics. He thought cold feet were part of a general condition and best remedied by cold affusion and rubbing. In high arterial tension calomel often gave relief and induced sleep even before the bowels acted. The subjects of low tension were sometimes unable to sleep in the horizontal position as the cerebral vessels were unable to contract and to resist the pressure of blood. Chloral was not only dangerous in primary heart affections but also in many pulmonary diseases on account of the cardiac depression.

Dr. W. HALE WHITE (London) thought that before attempting to treat insomnia the physician should assure himself of its reality. Patients often fancied or even dreamt they did not sleep. A good test was remembering to have heard the clock strike. The commonest cause was worrying often about quite trivial matters, in which case sleep might be induced by some monotonous repetition. Waking at 3 A.M. might be due to abnormal sensation of hunger, allayed by swallowing anything, even water. Diarrhœa or flatulence was more productive of sleeplessness than constipation, as was also delayed digestion due to fatigue. The insomnia of convalescence passed off as strength improved. Serious diseases which were incurable or which might shortly be recovered from called for narcotics. 10 grains of Dover's powder often did wonders in pneumonia, as did opium in heart disease; on the contrary, in less serious and long-lasting disease, such as tabes dorsalis or neuralgia, there was great risk of inducing a drug habit. People often awoke for want of ventilation, too great heat, noises, or light, which did not call for drugs. He recommended chloralamide, heroin, and paraldehyde.

Dr. W. COLLIER (Oxford) referred much of the present insomnia to over-education, especially in preparing for scholarships, the successful competitors often suffering after the age of 19 years from nervous failure and insomnia. He thought that the occasional employment of narcotics was of value in breaking a vicious circle before the habit of sleeplessness was established.

Dr. HUCHARD (Paris) considered that sleeplessness was not so much due to actual high circulatory tension as its variation in the same individual. The administration of one-tenth of a grain of calomel three times a day was often enough to gradually restore the habit of sleep in cases of high arterial tension, probably dependent on imperfect metabolism. Low blood-pressure could be rapidly raised by strychnine with which small doses of hypnotics otherwise useless often proved effective. Veronal and dormiol were safe and efficient, the former even in doses of three grains.

Dr. BERTRAND DAWSON (London), referring to the treatment of pain, said that what was wanted was a good peripheral anodyne. Cocaine, eucaine, and adrenalin were too transient. Orthoform and anæsthesin were useful as ointment, insufflating or dusting powder, but were insoluble and so inapplicable to the unbroken skin or as hypodermic injection. He recommended aspirin and trional in combination for sleeplessness through pain.

The PRESIDENT of the section said that he found paraldehyde useful as a hypnotic in old topers; perhaps it was like what they had been used to.

Dr. WILFRED J. HADLEY (London) read a paper entitled,

Diagnosis of the Varieties of Pleural Effusion.

These were (1) Septic and inflammatory; (2) tuberculous; (3) mechanical (heart and renal disease); and (4) cancerous. The means of distinction were clinical; culture and inoculation of the fluid; the effect of tuberculin; Jusset's microscopic method and cytodiagnosis. Polymorph cells indicating inflammatory and small lymphocytes tuberculous lesions, while hydrothorax showed only sparse endothelial cells. Jusset's method consisted of artificially digesting a few ounces of the clotted fluid, centrifugalising, and detecting tubercle bacilli in the deposit. By these means from 40 to 70 per cent. of pleural effusion were found to be of tuberculous origin.

Professor W. OSLER (Oxford) said that a tuberculous pleurisy might be as acute as any other in onset and might complicate rheumatism or pneumonia. It was most important to examine the sputum frequently for bacilli. His cases showed close on 30 per cent. subsequently dying from phthisis.

Dr. W. B. RANSOM (Nottingham) read a paper on

The Influence of Posture on Breath Sounds.

It was well known that a cardiac murmur might be distinct on the patient lying down but inaudible while he was standing, but this was not so well appreciated in lung disease. He quoted three cases in which crepitation and rhoncus inaudible in the erect posture was quite distinct on the patient lying down, all in the upper lobe of the lung and all due to tubercle as shown by later development. Expiration was prolonged on lying down possibly from difficulty in descent of the diaphragm.

SURGERY.

WEDNESDAY, JULY 26TH.

Sir CHARLES B. BALL (Dublin) presided in this section and in inaugurating the meeting he mentioned that so many papers had been offered to the section that it had been found necessary to ballot for the papers which were to appear on each day. He then called upon Mr. B. G. A. Moynihan (Leeds) to open a discussion on

The Surgical Treatment of Non-malignant Diseases of the Stomach.

Mr. MOYNIHAN, in order to facilitate the discussion, had prepared and had had printed a very full account of his cases which formed the material on which his paper was based and this account was distributed amongst the members at the meeting. He pointed out that the records contained in it were made up to a very recent date and great pains had been taken to obtain trustworthy information as to the present condition of the patients on whom he had operated. The non-malignant conditions of the stomach amenable to surgical treatment naturally were divided into four groups. In the first group were cases of perforating gastric and duodenal ulcers. As to the diagnosis of these cases it was very seldom that there need be any hesitation and as to the treatment there was an absolute unanimity that immediate operation was imperative. There were, however, some points which were not yet settled. In the first place is it advisable to excise the ulcer? Mr. Moynihan did not feel at all sure, and he had not been in the habit of doing it, but he was rather inclined to think that excision of the ulcer before suturing of the perforation would be an improvement. In the second place, should lavage of the peritoneum be performed and drainage arranged? In his opinion the need depended entirely on the time that had elapsed at the time of the operation since the perforation occurred. When a case is seen and the operation is performed a short time after the perforation has happened there is no need to wash out the peritoneal cavity or to drain it. When, however, many hours have elapsed and the peritoneum is definitely infected, lavage and drainage are very necessary. In the third place, is it advisable to perform a gastro-enterostomy at the time of closure of the perforation? He thought that in any case seen early it was desirable to do a gastro-enterostomy or Finney's operation at once, as thereby the healing of the ulcer was greatly expedited; but if the case were seen first when a long time had elapsed since the perforation the general condition of the patient would prohibit any extension of the operation. It is especially desirable that a gastro-enterostomy or Finney's operation should be performed when the ulcer is situated near the pylorus or in the duodenum, as thereby any later obstruction to the passage out of the contents of the stomach would be obviated. Fourthly, is it desirable to wash out the stomach? Mr. Moynihan had latterly been

in the habit of washing out the stomach with boiled water immediately before and during the operation of closing the perforation and he felt sure that this practice favoured the closing of the ulcer and prevented later leaking. Lastly, he wished to emphasise the fact that really acute ulcer of the stomach does not perforate but in every case of perforation there had been a definite increase of symptoms for some time before the perforation occurred. The second group of cases included those in which there was hæmorrhage from an ulcer of the stomach. This hæmorrhage might come from an acute or a chronic ulcer. It might arise from an acute ulcer; but it is very difficult to define an acute gastric ulcer because erosions might be included, but the hæmorrhage from an acute ulcer was never of any great interest to surgeons, for though it may be alarming it has a natural tendency to cease, and it is very rare for it to recur. In the case of chronic ulcers the hæmorrhage may be insignificant, or if more profuse it may only recur at very long intervals. In such cases there can be no need for immediate operation so far as the hæmorrhage is concerned. Also if, as occurs in some cases, the hæmorrhage is instant and overwhelming there can be no question of operation, for the patient dies before any operation can be performed. There remain therefore those cases in which the hæmorrhage is of some severity and then within 12 or 24 hours it recurs and recurs again, and the intervals decrease and the quantity of blood lost increases. In these cases it is probable that at least 90 per cent. would prove fatal if no operation were performed. In these cases an immediate operation is needed. Hæmorrhage from gastric ulcer nearly always occurs after an exacerbation of symptoms. Into the third group fall those cases where chronic ulcers of the stomach or duodenum persist in spite of treatment. Mr. Moynihan was inclined to think that chronic ulcers of the duodenum often escape diagnosis, though the diagnosis is generally very easy. The symptoms of chronic ulcer of the stomach or of the duodenum are numerous. The time of onset after the taking of food is of distinct value in localising the situation of the ulcer. The nearer the ulcer is to the cardia the shorter the interval between the taking of food and the occurrence of pain. The later the pain the nearer is the ulcer to the pylorus. Cases certainly have been recorded which seem to throw doubt on this rule but in Mr. Moynihan's opinion they are due to the presence of more than one ulcer in the stomach. The situation of the surface tenderness varies and a rough rule may be laid down that the nearer the tender spot is to the ensiform cartilage the nearer the ulcer is to the cardiac orifice and it has been found possible to prophesy more or less certainly the locality of the ulcer from the situation of the tender spot. The direction of the radiation of the pain is also of some value and it may perhaps one day be possible to state with fair exactness not only the situation of the ulcer but the existence of adhesions and their locality. The surgical treatment of chronic gastric and duodenal ulcers is in every way safer than medical treatment. In addition to the risks of hæmorrhage and perforation there is the additional danger of the development of malignant disease. The probability of this is difficult to estimate exactly, but Mr. Moynihan thinks that in 60 per cent. of the cases of gastric carcinoma there is a definite history of the symptoms of gastric ulcer. The prognosis of operation for gastro-enterostomy (excluding the cases where it is performed for perforation or hæmorrhage) is only 3 per cent., but even if it were higher, even as high as 15 per cent., it would be safer to operate than to leave these chronic ulcers to medical treatment. In all cases of chronic ulcer medical treatment should be tried first, unless there are any urgent symptoms calling for operation. The results of the surgical treatment of these chronic ulcers are very satisfactory. The immediate mortality is very low; in Mr. Moynihan's cases it is only 1·15 per cent. and of all his cases there were 80 per cent. of complete recovery from all symptoms. 10 per cent. of his cases were too recent to be included and in about 3 per cent. either a second operation was needed or no real benefit was obtained. Some of the cases which received no benefit were neurasthenic and with a widened experience such cases would not be submitted to operation. It may safely be said that every year the results of the surgical treatment of chronic gastric ulcer are improving. The fourth group contains cases of hour-glass stomach. These are often overlooked and they are probably by no means rare. It is essential that in all operations on the stomach the surgeon should see and handle the whole of the viscus before performing the operation, otherwise a gastro-enterostomy may be performed on the pyloric pouch of an hour-glass stomach. In one case Mr. Moynihan recognised the existence of an hour-glass stomach but failed to see that the stomach was trifid and so the operation failed of its purpose. Even in an ordinary hour-glass stomach there is generally some constriction of the pylorus, so that even if gastro-enterostomy be done on the cardiac pouch the pyloric pouch will fail to empty itself. There are numerous operations for the treatment of hour-glass contraction and the operation will vary with the exact condition present.

Professor ROBERT SAUNDBY (Birmingham) said that according to many surgeons the physician was doomed to extinction. Against the exploratory incision he was inclined specially to speak for it tended to displace diagnosis, and sometimes an exploratory incision meant that the operator was unable or unwilling to apply the ordinary diagnostic methods of the physician. Only too often it happened that a patient saw a physician and was told that no operation was desirable and a little later the same patient saw a surgeon and was told that an operation was imperative. In many cases it was very desirable that the physician and surgeon should meet and discuss the desirability of an operative procedure. He was entirely opposed to a statement contained in Mr. Moynihan's pamphlet where it was said that the surgeon should operate in all cases of chronic inveterate dyspepsia. This might possibly be true if a chronic inveterate gastric ulcer were present, but chronic inveterate dyspepsia might be the result of atonic dyspepsia with neurasthenia, or of exhaustion from child-bearing, or merely even of defective teeth. In cases such as these surgery can do no good and often does harm. The physician sees many cases early and then with suitable treatment they nearly all get well. Professor Saundby had never lost a case of gastric ulcer from hæmorrhage and therefore operation could not be so very necessary. With duodenal ulcer the case was different and in such cases early operation was very desirable but chronic gastric ulcer in many cases he successfully treated by medical means. He could not agree with Mr. Moynihan's estimate of the fatal character of gastric ulcer, for death very rarely occurred while a patient was under medical treatment. He also did not agree that many gastric ulcers went on to malignant disease; at least this was not so in Birmingham where malignant disease was rare; in fact, in 20 years' of hospital practice he did not think he had seen 20 cases of malignant disease of the stomach.

Professor HARTMANN (Paris) gave the statistics of 119 cases in which he had performed gastro-enterostomy. His operation mortality had been constantly diminishing and the mortality would be less even than it was if physicians would invoke the aid of the surgeon at an earlier stage. He always performed the posterior operation and placed the patient in the Trendelenburg position so that no leakage occurred during the operation. He employed two layers of sutures and the line of fixation was long and inclined downwards and to the right. The stomach was attached to the bowel about eight centimetres from the duodeno-jejunal junction. The most frequent complications were pulmonary and in only one case did a vicious circle form. Most of the unsuccessful cases had a nervous element in them. He was of opinion that all cases of stenosis of the pylorus needed treatment whether the narrowing be slight or severe. As to hæmorrhage he operated in all severe cases and in slighter cases when the hæmorrhage was frequently repeated.

Dr. J. M. T. FINNEY (Baltimore) chiefly referred to his form of pyloroplasty. He described the operation which consisted of a gastro-duodenostomy in which the new opening extended upwards into the pylorus. By an ingenious method of applying the sutures the operation was rendered comparatively easy. He mentioned that Scudder of Boston had devised a modification of the operation, employing continuous sutures, and Gould, also of Boston, had employed clamps but essentially the operation was the same. The indications were practically those of gastro-enterostomy. He had employed it 25 times. The chief contra-indication was hypertrophy of the pylorus and Dr. Finney referred to the great difficulty sometimes experienced in diagnosing between this condition and carcinoma and he related two cases in one of which a malignant growth was diagnosed as non-malignant and in the other, a simple hypertrophy of the pylorus, was thought to be carcinomatous. Dense adhesions also were a contra-indication against his operation but they did not render the operation impossible. He described an interesting

case in which at the necropsy marked dilatation of the duodenum was found; the patient died on the sixth day with all the symptoms of vicious circle. Incidentally he remarked that the so-called "vicious circle" was really an intestinal obstruction. Up to the present his operation had been performed 112 times with ten deaths, and as these statistics were drawn from the operations of 12 surgeons it might be concluded that they had a fair idea of the risk of the operation at present.

Mr. C. W. MANSELL MOULLIN (London) considered that diagnosis was the main difficulty and he looked upon an exploratory operation as a failure in diagnosis. The non-malignant forms of gastric disease which were suitable for surgical treatment were perforated gastric ulcer and cases of gastric ulcer in which exacerbations of the symptoms were present. Cases also in which disease had caused definite structural change were suitable for operation. When hæmorrhage was threatening life or was of frequent recurrence an operation should be performed. When hæmorrhage occurred from a definite bleeding spot he was in favour of dealing with the spot itself and not trusting to a gastro-enterostomy which could not be relied on to stop the hæmorrhage. The pain of gastric ulcer was due to dragging on the peritoneum and not to pressure on the ulcerated surface. In chronic ulcer gastro-enterostomy should be performed when the pain and discomfort interfered with the conduct of life. Mr. Mansell Moullin thought that it would be well to excise the ulcer when possible.

Mr. F. S. EVE (London) dealt chiefly with gastroptosis for which he had operated four times. Two cases had been treated with gastropexy and two with gastro-enterostomy. Two of the cases completely recovered and two were benefited. The treatment of hæmorrhage depended chiefly on the diagnosis. Most cases of hæmorrhagic erosions recovered without operation, but chronic ulcer would not. The difficulties of diagnosis were very great.

Mr. W. BRUCE CLARKE (London) distributed a pamphlet containing the substance of his views on the questions raised by Mr. Moynihan. He thought that the results of perforation depended in great part on the character of the liquid poured out into the stomach. In 13 out of 15 cases examined the liquid was sterile and therefore in most cases he felt that there was no need to clear out the material poured out into the peritoneal cavity. He laid great stress on drainage and in the average case he put in a drainage-tube, inserted a stretch in the ulcer, and merely sponged out as much as possible, and in one case he merely drained, recovery ensuing. If perforation had occurred earlier he put in a drainage-tube and then transfused the patient to the extent of even 15 pints in the 24 hours into the subcutaneous tissue and thus washed out the peritoneal cavity. Rutherford Morison (Newcastle-upon-Tyne) preferred pyloroplasty to gastro-enterostomy. In his opinion it was the best operation for pyloric stricture; he had had 28 cases and of these 12 were perfectly well. In four the symptoms returned, caused by fresh ulceration, and in all these gastro-enterostomy had been performed with success.

Mr. F. C. WALLIS (London) laid stress on the importance of early diagnosis in perforating ulcer, and he pointed out that the injudicious administration of morphine tended to hide the symptoms. He thought it unwise to waste time in hunting for a perforation not easily discoverable, for by opening the stomach the ulcer could easily be found and treated. He referred to one case in which he had successfully performed gastro-enterostomy on a patient 92 years old.

Mr. C. R. B. KEETLEY (London) thought that the pelvis should be drained in all cases of perforation of the stomach or any other abdominal viscus. Lavage was useful, perhaps, by causing a leucocytosis, but it must not be forgotten that lavage might wash away the leucocytes. He considered that hæmorrhage from an ulcer was due rather to sepsis than to mere irritation or distension. In many cases a simple jejunostomy was the best treatment for gastric hæmorrhage.

Mr. E. DEANESLY (Wolverhampton) mentioned that he had in one case diagnosed as perforated gastric ulcer a case of typhoid with acute inflammation of the spleen and in another case diabetic coma simulated a perforated gastric ulcer. He believed that gastro-enterostomy relieved a chronic gastric ulcer even when there was no pyloric stenosis.

Mr. LEONARD A. BIDWELL (London) thought that the anterior operation of gastro-enterostomy was better for cases of greatly dilated stomach and for cases where there was much thickening round the stomach. He objected to pyloroplasty and to Finney's operation that in neither case was the opening in the most dependent part of the stomach.

Mr. A. B. MITCHELL (Belfast) never excised the ulcer in perforation and he quoted a case to show that after suture of the ulcer all trace of it might disappear in nine days. He had known cases of gastric ulcer perforate even when no food was being taken by the mouth. Mere suturing of a perforated gastric ulcer is inefficient if an hour-glass contraction is present.

Mr. MOYNIHAN, in reply, mentioned that he had performed Finney's operation in two cases and both did well. He preferred the posterior operation for gastro-enterostomy.

Mr. C. A. LEEDHAM GREEN (Birmingham) read a paper on

Some Further Experiments on the Sterilisation of the Hands

His recent experiments had only served to confirm his belief expressed at the Oxford meeting of the British Medical Association that alcoholic solutions of antiseptics were the most efficacious and that sublimate alcohol was the best of all. Engel had agreed with the great value of alcoholic solutions but he said that sublimin-alcohol was the most powerful. With this view Mr. Leedham-Green's experiments did not agree. A paper was distributed showing graphically the relative efficiency of the different methods of sterilising the hands.

Mr. C. Y. PEARSON (Cork) described the results of a series of experiments on the value of his method of sterilising the hands. The method consisted chiefly in washing in soap-and-water for five minutes, then soaking with gauze dipped in an alcoholic solution of biniodide of mercury. Of 20 cases where it was employed nine were absolutely sterile.

Dr. T. G. ATKINS (Cork): 1. Distributed an Account of the After-histories of 20 Cases of Gastro-jejunostomy (reported at the Oxford meeting) for Non-malignant Diseases of the Stomach, showing that most of them had done well. 2. He also read notes of a case of Acute Gangrenous Appendicitis in a boy, aged 13 years. An operation was performed on the second day, though there was no fever. The appendix was found to be gangrenous and improvement occurred for two days but on the fifth day abdominal pain returned and symptoms of acetonæmia appeared. A second operation showed no local cause and the patient died from acute acetonæmia three days later. Dr. Atkins deduced from the case the need for operation in appendicitis as soon as definite symptoms appeared.

STATE MEDICINE.

WEDNESDAY, JULY 26TH.

After some opening remarks by the PRESIDENT (Dr. PHILIP BOOBBYER of Nottingham) on the disabilities of medical officers of health and their amelioration by the formation of an association of representatives of local authorities and sanitary experts, a discussion on

Hospital Isolation

was introduced by Dr. GEORGE WILSON (Warwick) who stated that the deductions he would bring forward were the outcome of 32 years' experience. With regard to small-pox isolation, he contended for a special block at the general infectious hospital, and, in his opinion, there was very little risk of the spread of infection. With regard to scarlet fever, he stated that hospital isolation had failed in reducing the incidence and mortality of the disease. He was also sure that it did not cause the presence of the milder form of the infection and was strongly in favour of separate isolation rather than aggregation in large wards.

Dr. T. WHITESIDE HIME (Bradford) drew attention to the very inadequate knowledge that was possessed concerning the incidence of infectious diseases and of the impossibility of definitely determining what was the real cause of their prevalence at certain periods and their disappearance almost at others.

Dr. J. E. O'CONNOR (Leicester) believed that until some trustworthy method of locating unnotified cases was evolved hospital isolation must be inefficacious. He would desire to see proper segregation, not aggregation, of scarlet fever cases.

Dr. F. H. WADDY (Sheffield) stated that during the last four years in Sheffield the houses from which patients were removed to hospital were worse off in respect to recurrence of scarlet fever than were those in which patients were treated at home and that he was sure that hospital isolation would have to be regarded as a last resort for those cases which unfortunately could not possibly be treated in their own homes.

Dr. R. S. MARSDEN (Birkenhead) was prepared to say that hospital isolation, even if it did no more, greatly reduced

the amount of suffering and upon that ground alone it was warranted.

Dr. H. COOPER PATTIN (Norwich) urged the desirability of true isolation rather than aggregation of scarlet fever cases in large wards.

Dr. SPOTTISWOODE CAMERON (Leeds) believed that although many suggestive statistics had been put forward it was very important to interpret them rightly.

Dr. W. R. SMITH (London) said that the question of the value or otherwise of hospital isolation was not to be answered on mere statistics and an impartial inquiry into the whole subject was needed. He was sure that the importance of "return" cases had been exaggerated.

Dr. E. HAUGHTON (London) alluded to the difficulty there often was in diagnosis.

Mr. J. M. MACKENZIE (Kirkby-in-Ashfield) was certain that contact was the real source of infection in scarlet fever.

The PRESIDENT of the section remarked that isolation for small-pox cases appeared to be a settled matter but he felt the need of an inquiry concerning the value of hospital isolation in other infectious cases.

Dr. WILSON then proposed and Dr. C. KILLICK MILLARD (Leicester) seconded the following motion which was carried:—

That as some doubt has arisen in respect to the value of hospital isolation as at present practised as a preventive measure in checking the spread of scarlet fever and diphtheria and in view of the great expenditure of public money which the provision and maintenance of isolation hospitals for these two diseases entails, it is highly desirable that a full and exhaustive inquiry into the whole subject should be carried out with the object of collecting and analysing the large amount of statistical and other evidence now available and that the Local Government Board, as the central authority, be respectfully requested to institute such inquiry.

INDUSTRIAL HYGIENE.

WEDNESDAY, JULY 26TH.

This section was under the presidency of Dr. H. W. LANGLEY BROWNE (West Bromwich). A discussion on

Physical Deterioration: its Causes and Extent

was opened by Dr. DAWSON WILLIAMS (London) who produced several tables illustrating a series of observations on the height and weight of boys in primary schools which showed that after the eighth year of age the weight of boys of the artisan classes was very much below the average, this fact being more noticeable in the lowest grade schools. The same remarks applied to the height of boys, though in a less degree. The first striking statement about physical degeneration was made some years ago by Mr. J. Cantlie, who challenged any person to produce a Londoner of the fourth generation. This challenge had never been answered. Dr. Dawson Williams attributed this physical deterioration to various causes, among which he mentioned—improper feeding in infancy; the fact that among the poorer classes mothers worked hard almost up to the time of their confinement; intemperance in fathers, which was said by French authorities to be more injurious to the children than maternal intemperance; and the practice of large numbers of children in London sitting out of doors until midnight which involved a great expenditure of nervous energy. He mentioned that the London Education Committee intended to provide one meal a day for school children, to be cooked by children learning cookery, and suggested, in conclusion, that the medical profession might undertake to collect materials for the further elucidation of the subject.

Mr. WILLIAM HALL (Leeds) read a paper on

The Influence of Environment upon Physical Development.

He mentioned the recent statement by a distinguished alienist that environment, in which proper food played the most important part, would knock heredity into a cocked hat. Forty years ago Sir William Jenner showed that rickets was due to improper food in infancy. Since then many authorities had pointed out the same fact and now at least 40 per cent. of our poor were rickety and decayed teeth were universal. Fifty years ago the slum mother was much more sober, cleanly, and domestic than she was to-day. She was better nourished herself, always suckled her children, and after weaning them gave them nutritious bone-making food, which she prepared at home. This had all been done away with by our elaborate education system, costing £20,000,000 yearly. Children were now fed on cheap stale food, well seasoned with condiments, which educated them for the love of stimulants in later life and produced also a tendency to scurvy, rickets, and purpura. A little while ago he had examined over 100 adult skeletons in the crypt of Hythe church where they had lain for several centuries. He was struck by the fact that the bones were small but not rickety, the bony palates not much vaulted and the alveolar arches regular, and the teeth that remained were good. It had been said truly that there were hundreds and thousands of our countrymen now living whose skeletons, if preserved, would some day show highly vaulted bony palates, contracted alveolar arches, anterior protrusion of the upper jaws, the remains of unsound teeth, and abundant general signs of rickety bony framework. It was remarkable that Jewish children in the slums were superior to Christian children in physical development, which was due to the fact that the pregnant Jewess was better cared for, that 90 per cent. of the infants were fed on breast-milk, and that during later childhood they were abundantly fed on bone-making material. Eggs and oil, fish, fresh vegetables, and fruit entered largely into their diet. Yet the Jews had not been taught to safeguard their pregnant wives and to nourish their growing children by the instructors in the modern and costly State education which they were told at Oxford was to be at the root of everything. With the aid of friends he had given during the last two years 46,000 meals to poor council school children from the ages of three to 12 years and he had noticed the remarkable improvement in their physical development by the daily use of fresh antiscorbutic food. They had been fed for five days a week, not merely twice a week, as seemed to be thought sufficient by the London County Council.

Professor R. J. ANDERSON (Queen's College, Galway) remarked that he thought it would be a most important thing to secure a complete anthropometric survey of the whole of the British Isles. He doubted if improper food was the chief cause of physical deterioration, because, in his opinion, food had of late years greatly improved in quality. He thought that the clergy ought to do more than they did at present to improve the condition of the lower orders.

Mr. W. D. SPANTON (Leeds) considered that the most prominent causes of physical degeneration were—efforts to rear premature and diseased infants, absurd educational high pressure, cigarette smoking in the younger generation, and late hours at night; in fact, the love of pleasure, and ergophobia in all classes of society. He considered that there was too much cheap philanthropy, that life was made too easy for the young poor, and that by modern educational methods proper parental discipline was rendered almost impossible.

Mrs. F. M. DICKINSON BERRY, M.D. (London), said that in her opinion children in London schools were not underfed so much as improperly fed, and that they preferred to eat bread and pickles, dried fish, &c., and had to be forced to eat a proper dinner. She quite endorsed Mr. Hall's remarks about Jewish children.

Dr. D. CHALMERS WATSON (Edinburgh) emphasised the importance of fresh facts being looked for from the standpoint of experimental medicine. He briefly referred to some results obtained in the course of an experimental investigation on diet carried out in the Physiological Laboratory of Edinburgh University, which showed the necessity of an extended investigation along lines calculated to determine the influence of different diets on the structure and functions of different organs and tissues of the body.

Dr. V. H. RUTHERFORD (London) said that he was struck by the attacks which had been made on education and with which he could not agree. He recommended the more general teaching of hygiene and considered that the subject of proper feeding was most important, in which he included the use of alcohol, the abuse of which was a most potent factor in producing physical unfitness. He also urged the appointment of a Minister of Public Health with Cabinet rank.

The PRESIDENT of the section remarked that physical deterioration was often a mere matter of locality. In his district the development of children at the age of 13 years was better than it was 30 years ago but after the age of 13 the reverse was the case. This he attributed to the fact that the feeding of young children was better than it used to be, but after that age feeling was very irregular, and that excessive cigarette smoking and, to a lesser extent, drinking prevailed among the young men, while the young women spent on dress money which ought to be spent on food.

Dr. JOHN STRACHAN (Dollar, N.B.) then read a paper on

"School Life as a Cause of Physical Degeneracy," and alluded to the undoubted increase of physical degeneracy and insanity in spite of the great improvements in sanitation and hygiene. He considered that this increase was due to high pressure in schools owing to the modern system of payment by results. Even though the admitted evils of the earlier arrangements for working the Education Acts had since been obviated by repeated changes in the code, yet he wished to point out that the men and women of the present day were the survivors of those who had in previous years been subjected to over-pressure and that many of them were the victims of physical deterioration. He considered that the fear of punishment had a very serious effect on the nervous organisation of children and recommended that the employment of either punishment or prizes as applied to brain work at school should be absolutely forbidden.

PSYCHOLOGICAL MEDICINE.

WEDNESDAY, JULY 26TH.

The proceedings commenced with the presidential address delivered by Dr. ALEXANDER REID URQUHART (Perth Asylum) on

The Heredity of Insanity.

A correct adjustment of the organism to the environment, physical, mental, and moral, constituted sanity and health. Statistics formed the basis of our knowledge of heredity, large numbers of observations having to be made to determine the laws which prevailed in the process of hereditary transmission from parent to progeny. Dr. Urquhart referred to the work of Francis Galton and Karl Pearson as affording much new light and then dealt at considerable length with a large and systematic series of genealogical tables collected by him in the last 20 years, illustrating various aspects of the question of the heredity of mental diseases and the neuroses.

A long discussion followed in which the following members took part: Dr. T. B. HYSLOP (Bethlem Royal Hospital), Dr. W. LLOYD ANDRIEZEN (London), Dr. FLETCHER BEACH (London), Dr. ARTHUR M. JACKSON (Notts County Asylum), Dr. A. CLAPHAM, Dr. A. T. SCHOFIELD (London), Dr. DAVID BOWER (Gloucester), Dr. T. JOHNSTONE (Leeds), Dr. ROBERT JONES (Claybury Asylum), and the PRESIDENT of the section who summed up various points and replied to queries.

Dr. SCHOFIELD then read a paper on the Extension of Psychology in Medicine, in which he urged the importance of the study of the subconscious mind as of the conscious mind in therapeutics and insanity.—The discussion was continued by the PRESIDENT, Dr. ROBERT JONES, Dr. HYSLOP, and Mr. JAMES STEWART (Clifton), after which Dr. SCHOFIELD replied.

A motion proposing that an appeal should be made to the Central Executive Committee to enable the Psychological Section (with the aid of a small fund) to carry out an inquiry into the heredity of mental disease as compared with the hereditary conditions prevailing in the sane population was carried and the meeting was then brought to a close.

OPHTHALMOLOGY.

WEDNESDAY, JULY 26TH.

The proceedings were opened by the PRESIDENT, Mr. GEORGE A. BERRY (Edinburgh). Fifty years ago, he said, ophthalmology was revolutionised by such striking and important discoveries that it leapt at once into the front rank of scientific medicine. In recent years advance had been slower and had been confined principally to operative technique in the introduction of antiseptics and local anæsthetics. This comparatively slow advance was not due to there being nothing left to be found out or to the dearth of work and records in the subject, especially in pathological processes; it was rather due to the slowness of discovery in therapeutic measures and the difficulty of developing this work with due critical insight. Yet he believed the signs of the times were hopeful and he looked for the day when in many branches a rational medicine would eliminate a haphazard surgery.

Dr. A. BRONNER (Bradford) read notes on a case of Slight Myopia in which distressing local and general symptoms were relieved by the use of glasses which were much too strong.

Mr. E. E. HENDERSON (London) gave the results of his researches into the Action of Influence of the size of the Pupil, as produced by eserine or atropine, on the circulation of fluids within the eye.

Mr. N. BISHOP HARMAN (London) narrated the results of Electrical Treatment of Trachoma at the Middlesex Hospital. Mr. C. DEVEREUX MARSHALL (London), Mr. CYRIL H. WALKER (Bristol), the PRESIDENT of the section, and Colonel E. F. DRAKE-BROCKMAN (London) discussed the paper.

Mr. HARMAN read a paper on False Hay Fever, upon which Mr. DEVEREUX MARSHALL, Dr. BRONNER, and the PRESIDENT of the Section spoke.

Professor HESS (Würzburg) showed drawings illustrating Pigment Migration in Cephalopod Eyes.

Dr. KARL A. GROSSMANN (Liverpool) demonstrated by means of lantern slides numerous cases of Lepra Ophthalmica and also read notes on a case of Absence of the Dilator Muscles of the Iris and of Hot-air Cautery for use in Conical Cornea.

Mr. CECIL E. SHAW (Belfast) read notes of a case of Amblyopia, apparently toxic, following influenza.

LARYNGOLOGY, OTOLOGY, AND RHINOLOGY.

WEDNESDAY, JULY 26TH.

Dr. F. W. BENNETT (Leicester) presided and delivered a brief address welcoming members to the section. A discussion on

The Lines of Treatment in Preventing Acute Middle-ear Suppuration from becoming Chronic

was opened by Dr. W. MILLIGAN (Manchester) and Dr. E. B. WAGGETT (London). A paper was read on the same subject by Mr. T. G. OWSTON. The discussion was then resumed by Dr. A. A. GRAY (Glasgow), Dr. ATWOOD THORNE (London), Mr. T. MARK HOVELL (London), Mr. R. LAKE (London), Dr. W. HILL (London), Mr. L. A. LAWRENCE (London), Dr. W. JOBSON HORNE (London), Dr. J. KERR LOVE (Glasgow), Dr. J. DUNDAS GRANT (London), Dr. HERBERT TILLEY (London), Dr. J. MIDDLEMASS HUNT (Liverpool). The PRESIDENT of the Section summed up the discussion and the openers replied.

Dr. GRAY read a paper on the Pathological Conditions found in a Case of an Individual who had suffered from Deafness during Life.

Dr. W. S. SYME (Glasgow) demonstrated a Pair of Forceps for Operations on the Maxillary Antrum.

NAVY, ARMY, AND AMBULANCE.

WEDNESDAY, JULY 26TH.

Surgeon Lieutenant-Colonel H. W. KIALLMARK (London) presided and an interesting paper was communicated to the section by Fleet Surgeon C. M. BEADNELL on Some Dynamical and Hydrodynamical Effects of the Modern Small-bore Bullet, in which it was claimed that the so-called "explosive" effects of the modern bullet were due to sudden enlargement of the "impact area" resulting from a modification either in the form or in the motion of the projectile. Many of the "explosive" phenomena were due to such eccentricities of flight as the various "spinning-top" and "pirouetting" motions of the bullet.

Papers were read by Fleet-Surgeon O. W. ANDREWS on the Arrangements for the Treatment of Wounded in Action; by Fleet-Surgeon T. AUSTEN on the Collection and Distribution of Wounded in a Modern Cruiser Engagement; and by Fleet-Surgeon E. J. BIDEN on the Headdress of Certain Ratings in the Navy.

THE ANNUAL EXHIBITION.

THE accommodation provided for the annual exhibition at Leicester in the Drill Hall and Magazine-square, The Newarke, was not extensive but the exhibitors found sufficient space for their requirements. Compared with previous occasions the exhibition this year was smaller in scope, though it contained much to interest the medical profession. There were no striking departures in pharmaceutical applications or methods of administration and for the most part the exhibition of drugs was confined to the familiar advances of past years. There were, of course, a few exceptions. As regards the space taken up, special foods and drugs took a quite minor position in favour of surgical appliances, aseptic hospital furniture, and x ray and high-frequency apparatus. The show of motor-cars and accessories again presented little that was of direct interest to the medical man; he might

have seen similar exhibits at any ordinary exhibition of motor-cars. The display of sanitary apparatus, if we except sterilising apparatus for hospital use, was restricted practically to disinfectants and filters but here and there were shown one or two examples of improved lavatory appliances.

In reviewing the exhibits we may adhere to the classification adopted in previous years. This year, however, we have thought it best to modify the order in which each section is taken in accordance with its magnitude. We propose, therefore, to take the various sections of the exhibition in the following order: (1) Surgical Instruments and Appliances; (2) Drugs; (3) Foods and Food Products; (4) Sanitary Appliances; (5) Mineral Waters, Beverages, &c.; (6) Publications; and (7) Miscellaneous.

I.—SURGICAL INSTRUMENTS AND APPLIANCES.

The section devoted to surgical instruments and appliances and special hospital fittings appeared on the whole to have a greater interest for the visitors than the other sections. At any rate, there was plenty to see in this section and altogether this class of article was a feature of the exhibition. Amongst makers of instruments and hospital appliances Messrs. Allen and Hanburys, Limited, of 48, Wigmore-street, Cavendish-square, London, W., occupied a fairly large share of the space at the disposal of the exhibition committee. They showed operation tables, one of phosphor bronze with Allen and Hanburys' patent mechanism for the Trendelenburg position attached and with hot water containers, douching funnel, and lithotomy stirrups with foot straps; and another provided with adjustable head-rest, the angle of the table being fixed by a sliding clamp. By means of a lever the ball-bearing steel-cupped rubber-tyred castors may be put in or out of action by a simple movement of the lever. Other operation tables were shown of excellent design which offer every convenience for securing satisfactory positions for the subject under operation. There were also shown a phosphor bronze aseptic instrument cabinet with plate glass shelves and bevelled glass door; a new aseptic table constructed to insure perfect cleanliness; a gas trolley carrying nitrous oxide and oxygen cylinders; an aseptic stand made of phosphor bronze for supporting reservoirs containing various lotions; and finally aseptic towel hangers, made again in that excellent material for the purpose, phosphor bronze. A very large assortment of surgical instruments was presented to view by Messrs. S. Maw, Son, and Sons of 7–12, Aldersgate-street, London, E.C. These comprised instruments for operations on the eye, ear, and nose, besides midwifery instruments, elastic gum catheters, and bougies. Attention was also directed at this stall to some sterilising apparatus for instruments and dressings, and to aseptic theatre furniture in German silver. As an example of a local firm exhibiting an excellent selection of surgical instruments and appliances of recent and approved design Messrs. Albert Brown of 3, Bowling Green-street, Leicester, claim mention. Messrs. James Woolley, Sons, and Co. of Victoria Bridge, Manchester, showed a number of novel appliances of interest both to the physician and the surgeon. Amongst these were the Rochester combination steriliser, an effectual and easily controlled apparatus for the purpose; an electrical apparatus by which the current from the main could be used in small lamps for the examination of the throat and nose; and, lastly, an adjustable truss known as the "Boval." The truss is provided with steel springs which are slotted to receive a specially constructed slide, by means of which a pad of any desired shape or size may be attached to a spring. The slide is so constructed that the spring may be expanded or contracted, whilst the pad may be set at almost any angle. Messrs. Croyden and Co., of 55, Wigmore-street, Cavendish-square, London, W., exhibited a number of specially made catheters, bougies, and special appliances for sterilising such instruments. The exhibit also included some illustrations of the "shadowgraph ureteric bougie." Clothing for the insane and a model of a padded room were the principal exhibits of Messrs. Pocock Brothers, of 235, Southwark Bridge-road, London, S.E. The padded room is provided with an aluminium gutter, a self-acting shutter, a protected door-hinge, and a self-acting and automatic door bolt for opening the door at any distance. Messrs. Isaac Chorlton and Co., of Blackfriars-street, Manchester, exhibited a number of special bedsteads, including mechanical beds, maternity beds, and beds for epileptic cases. In particular may be mentioned the surgical bedstead fitted with a self-elevator, a back rest with foot support, a bed table, fracture boards, an extension arrangement of foot-bar, and a telescopic adjustment for raising the foot end. Close by special bedsteads fitted with patent wire mattress were shown by the Longford Wire Company, Limited, of Warrington. Special hospital bedsteads comprise the exhibit of Messrs. John and Joseph Taunton, Limited, of Belgrave Works, Balsall Heath, Birmingham.

Messrs. R. H. Woodland, of 38A, Commercial-road, Eastbourne, Sussex, exhibited the "Eastbourne" invalid chair which presents many advantages where the conveyance of invalids is concerned. An interesting number of invalid and surgical appliances, including bed-pans, and operating and obstetrical cushions, were exhibited by the Seamless Rubber Company, who were represented by Messrs. Howison and Co. of 4, Snow-hill, London, E.C. The well-known Lawson Tait spring bedsteads for all kinds of invalid purposes were exhibited by Messrs. George Gale and Sons, Limited, of Dominion Works, Birmingham. The Dowsing Radiant Heat Company, Limited, of 24, Budge-row, Cannon-street, London, E.C., exhibited their apparatus for treatment by radiant heat and light, while Mr. C M. Holmquist of 57, Edgware-road, London, W., showed his "sunbeam" semi-reclining light bath, an electric vibrator, and a local bath for the radiant treatment of the limb or shoulder. Some recent improvements in surgical instruments were very well exemplified in the excellent assortment shown by Messrs. John Weiss of 387, Oxford-street, London, W., and Messrs. Lynch and Co. of Silver-street, Falcon-square, London, E.C., exhibited a variety of apparatus and appliances, including sterilisers, gynæcological and other operating instruments, as well as electrical and medical batteries. Messrs. Mayer and Meltzer, of 71, Great Portland-street, London, W., showed an excellent collection of surgical instruments, all made in accordance with recent surgical advance. The exhibit included a special operation table designed by Mr. Stanley Boyd. Space precludes mentioning in detail the very large selection of surgical instruments of recent and approved design which was shown by Messrs. Arnold and Sons of 31, West Smithfield, London, E.C. Some excellent photographs were also shown illustrating the aseptic theatres fitted up by this firm. Messrs. Philip Harris and Co. of Birmingham exhibited their "perfectum" surgery cabinet which, in design, in completeness of equipment, and economy of space, leaves little to be desired. Messrs. T. Holland and Son of 40, South Audley-street, London, W., announced that they have just patented a new kind of support for flat foot. It is an improvement on the "instep arch sock" as regards strength, elasticity, and durability. Mention may also be made of the improved natural-shaped boots made by this firm.

A very interesting and comprehensive collection of hospital appliances was shown by the Holborn Surgical Instrument Company, Limited, of 26, Thavies Inn, Holborn-circus, London, E.C. A feature of the exhibit was a variety of sterilisers, amongst which may be mentioned in particular the Holborn high-pressure steam steriliser working at 250° F. It is not only a trustworthy apparatus for the sterilisation of dressings with dry steam but is compact and easily managed. Amongst the admirable assortment of surgical instruments and accessories shown at the well-arranged stall of Messrs. Down Brothers, Limited, of 21, St. Thomas's-street, London, S.E., were a "first-aid" box for use on motor-cars, an anæsthetic apparatus designed by various well-known chloroform administrators, aneurysm instruments, bullet forceps and probe guide, and other varieties of forceps. The exhibit included new and original designs of aseptic hospital furniture. The exhibit of the Medical Supply Association of 228, Gray's Inn-road, London, W.C., was made attractive by the demonstration of the Gaiffe-d'Arsonval machine for producing the x rays and high-frequency current directly from the electric main without any interrupter. The machine is exceedingly quiet and steady in operation and a very distinct advantage is that by its means the quantity of current administered to the patient can be measured from day to day. The exhibit included the Gaiffe auto-motor mercury jet interrupter which appeared to us to work very satisfactorily and silently. A compressed air outfit for producing atomisation or vibratory stimulation was shown by Messrs. Smith and Wade of 20, Baker-street, London, W., as was also the "Allison" combined examination couch, operating table, and cabinet. Messrs. W. Watson and Sons, of 313, High Holborn, London, W.C., exhibited a new

high tension transformer for producing x rays and high-frequency currents directly from an alternating current without induction coil or primary interrupter. The apparatus works beautifully steadily with the x ray tube. Orthopædic appliances and artificial legs formed the subject of exhibition at the stall of Messrs. C. A. Hoeffteke, Limited, 21, Woodstock-street, Oxford-street, London, W. The exhibit included an appliance for fractured leg, tuberculous hip and knee-joint, for paralysis, and walking appliances. Messrs. A. de St. Dalmas and Co. of Leicester showed a selection of excellent medical plasters and surgical bandages, while the Liverpool Lint Company of Mark-street Mills, Netherfield-road North, Liverpool, exhibited their surgeons' tow, absorbent cotton wool, and "impermiette" bed sheeting. Antiseptic wood wool tissue was shown by the Sanitary Wood Wool Company, Limited, of 26, Thavies Inn, Holborn-circus, London, E.C., as also were several antiseptic appliances of which wood wool is the basis. Mr. G. H. Zeal, of 82, Turnmill-street, London, E.C., exhibited a number of specially designed clinical thermometers of which the "Repello" was perhaps the most important departure. This thermometer has already been described in our columns and is made with a compressible glass bulb at the top by means of which the mercury column can be restored to its initial level. Messrs. Harry W. Cox, Limited, of 1A, Rosebery-avenue, London, E.C., are well known for the excellence of their apparatus for x rays and high frequency. In the annexe Messrs. Newton and Co. of 3, Fleet-street, London, E.C., exhibited an interesting collection of medical electrical apparatus including Wright's high tension resonance transformer. This transformer can be connected directly to the alternating main current, contact breakers being dispensed with. With the continuous current a small motor converter is necessary. The exhibit included a stereoscope and some microscopes and spectroscopes.

II.—DRUGS.

Continued attention is being given to the improvement of pharmaceutical preparations and while the bases of old formulæ are in the main adhered to the plan of combination in a great number of instances is more subtle, a greater compatibility is aimed at and those new forms of drugs are chosen the effects of which are more satisfactory. As examples may be quoted the tonic formulæ which have replaced the syrups in which the glycerophosphates are substituted for ordinary phosphates and a more suitable vehicle than sugar. The old Blaud pill again is a very different compound from the modern combination of sulphate of iron and carbonate of soda protected by an effectual envelope of sugar or gelatin against the deterioating influence of the air. Modern exhibitions of drugs are now generally directed to the display of such improvements together with the advances that have been made in organo-therapeutic preparations and are thus of special interest to the practitioner. The drug section at the annual exhibition at Leicester was no exception though the number of the exhibits was comparatively small. As an example of the extension of the manufacturing chemists business to the preparation of biological remedies may be mentioned the firm of Messrs. Parke, Davies, and Co. of 111, Queen Victoria-street, London, E.C. On Stand 76 this firm showed lantern slides illustrating the preparation of serum and vaccines and the physiological testing of drugs, including the effect on the heart and the blood pressure of adrenalin, chloretone, digitalin, digitoxin, digitalis, and digitalone. Beside these there were exhibited medicine cases and chests and a series of elegant pharmaceutical preparations. Messrs. James Woolley, Sons, and Co., Limited, of Victoria-bridge, Manchester, showed, amongst other interesting preparations, two excellent ointments of perfectly uniform consistence—namely, unguentum resorcin co., useful for skin diseases, and unguentum seditavum, a soothing ointment containing zinc oxide and carbolic acid. A very comprehensive exhibit was that of Messrs. Wyleys, Limited, of Coventry, including the heroin compounds and several excellent syrups and liquors. We have already noticed the merits of formolyptol exhibited by Andrus and Andrus of 46, Holborn-viaduct, London, E.C. It is a pleasant, powerful, and yet non-poisonous antiseptic containing active balsamic agents with formaldehyde. The same firm exhibited hemaboloids, which is stated to be an organic combination of iron and the nucleo-proteids. The Bayer Company, Limited, of 19, St. Dunstan's-hill, London, E.C., exhibited a number of new compounds and synthetics. Amongst these may be mentioned in the form of tablets metakalin, a pure, readily soluble preparation of cresol; veronal, a comparatively new hypnotic, saloquinine, an analgesic; mesotan, an external application in rheumatism and aspirin a substitute for the salicylates. The Angier Chemical Company, Limited, of 32, Snow-hill, London, E.C., exhibited specimens of their emulsion of petroleum with hypophosphites. It would appear that petroleum is not absorbed by the system but the hydrocarbon acts as an excellent vehicle, exerting an antiseptic, sedative, and demulcent action on the intestinal membrane. Messrs. Arthur and Co. of Ogle-street, London, W., made once more a point of their bromaurum used in the treatment of neurasthenia. The preparation is regarded as a direct nerve tonic and is said to be remarkable in subduing pain of long standing. A number of new preparations was shown at the stall of Messrs. Burgoyne, Burbidges, and Co. of 12 and 16, Coleman-street, London, E.C. Amongst these were colloidal calomel, "salit," a fluid containing salicylic acid, and novargan, a silver preparation with strong bactericidal properties and used in gonorrhœa. Messrs. Philip Harris and Co., Limited, of Birmingham had a very interesting display of pharmaceutical preparations, including suprarenalin solution, bactericidal soap, pencils of iodoform, and a series of concentrated mixtures compiled from the formulæ of the pharmacopœias of the London hospitals. Besides palatinoids of various animal substances, Messrs. Oppenheimer, Son, and Co., Limited, of 179, Queen Victoria-street, London, E.C., exhibited "metramine" palatinoids. Metramine is described as a purified form of hexamethylenetetramine which is said to be an excellent antiseptic for the genito-urinary tract, splitting up in the urine into formic aldehyde and ammonia and so rendering it both alkaline and antiseptic. There was also exhibited the now well-known vaporiser and aeriser of this firm. Messrs. C. J. Hewlett and Son of 35 to 42, Charlotte-street, London, E.C., exhibited a number of pharmaceutical preparations of decided merit. Such were, for example, their pepsine and bismuth mixture, their bromide compound and a linctus, and their linimentum betulæ co. containing amongst other things the active principle of oleum betulæ and camphor. Besides these there were a number of admirably prepared antiseptic compounds and an emollient cream. We have already drawn the attention of our readers to the milk of magnesia which was exhibited by the Charles H. Phillips Chemical Company of 14, Henrietta-street, Covent-garden, London, W.C. It is, of course, a powerful antacid and does not disengage gas on being neutralised. It is practically tasteless and incidentally is an excellent cleansing agent for the teeth. Local pharmacy was well represented at the stall of Messrs. T. Howard Lloyd and Co., the exhibit including medicine chests and cases, soluble coated pills, and a number of elegant pharmaceutical preparations. Lastly, Messrs. H. and T. Kirby and Co., Limited, of 14, Newman-street, London, W., exhibited the new synthetic aperient purgen besides a selection of tablets of compressed drugs, soft glycerine lozenges, pearl, gelatine, and sugar-coated pills, and some pleasant, besides effective, antiseptic preparations.

Medical News.

UNIVERSITY OF LONDON.—At examinations held in July the following candidates were successful:—

M.D. EXAMINATION.

Medicine.—William Fraser Annand, B.S., University College; Emile Dupont Aubin, B.S., Middlesex Hospital; William Henry Bailey, St. Bartholomew's Hospital; Elizabeth Honor Bone, B.S., London (Royal Free Hospital) School of Medicine for Women; Arthur Bousfield, B.Sc. (University medal), King's College; Archibald Douglas Hamilton, St. Thomas's Hospital; Percival George Harvey, B.S., St. Bartholomew's Hospital; Francis Riley, B.S., Westminster Hospital; and Edward Allan Wilson, B.S., University of Leeds.

Pathology.—Robert Henry Elliot, B.S., St. Bartholomew's Hospital.

Mental Diseases and Psychology.—Christine Mary Murrell, B.S., London (Royal Free Hospital) School of Medicine for Women.

Midwifery and Diseases of Women.—Mildred Mabel Burgess, London (Royal Free Hospital) School of Medicine for Women; Clement Woodthorpe Chaplin, London Hospital; Victor Evelyn Collins, Guy's Hospital; Thomas Henry Harker, St. Bartholomew's Hospital; Carlton Oldfield, B.S., University of Leeds; and Richard Horace Paramore, St. Bartholomew's Hospital.

State Medicine.—Francis Dawson Blandy, Middlesex Hospital and Victoria University; and Harold Tipping, University College and Guy's Hospital.

M.S. EXAMINATION.

Thomas Holmes, M.D. (University Medal), Guy's Hospital.

A meeting of the Faculty of Medicine was held on July 18th, Dr. J. K. Fowler, the dean of the faculty, being in the chair. The chairman announced that Dr. Lauriston E. Shaw had, in consequence of his election to the Senate, resigned the honorary secretaryship of the faculty. A vote of thanks to Dr. Shaw for his services during the past five years having been carried, it was resolved to postpone the election of a successor until the October meeting. A committee on teaching and research in the "advanced" subjects of the curriculum—viz., those subjects studied after passing the intermediate examination—presented an important report. The report contained proposals for the development of research in pathology, pharmacology, and clinical subjects and made suggestions for grouping the lectureships in subjects such as hygiene, forensic medicine, and mental diseases. The report also dealt with the question of securing funds for the support of medical education and the manner in which such funds should be allocated to different institutions and different subjects. In the final section of the report the committee made recommendations as to the periodical inspection by the University of the medical schools and the recognition by the Senate of practical work done by students in the wards and laboratories of the schools as counting towards the results of the final examinations. The report was amended by the faculty and adopted for presentation to the Senate. The faculty approved a report from the board of dentistry upon additional teaching required in London upon comparative odontology, the pathology of the teeth, and the mycology of the mouth. Resolutions were passed indicating the procedure approved by the faculty relating to theses for degrees in medicine and surgery. The regulations proposed by the Board of Advanced Medical Studies for candidates desiring to take the degree of M.D. in tropical medicine were considered and approved.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations in July the following candidates passed in the subjects indicated :—

Surgery.—H. J. Aldous (Section I.), King's College Hospital; and G. M. Seagrove (Section I.), St. Bartholomew's Hospital.
Medicine.—G. N. Biggs (Section I.), St. Thomas's Hospital and Durham; V. H. Blake (Sections I. and II.), St. George's Hospital; J. L. Meynell (Section I.), London Hospital; L. W. Roberts, Middlesex Hospital; L. Sells (Sections I. and II.), St. Thomas's Hospital; and R. W. T. Watts (Sections I. and II.), Royal Free Hospital.
Forensic Medicine.—G. N. Biggs, St. Thomas's Hospital and Durham; V. H. Blake, St. George's Hospital; E. M. Magill, Royal Free Hospital; L. Sells, St. Thomas's Hospital; and R. W. T. Watts, Royal Free Hospital.
Midwifery.—E. M. Magill, Royal Free Hospital; O. C. H. L. Moll, Guy's Hospital and Durham; A. R. Paterson, Calcutta; C. A. K. Renshaw, Cambridge; N. A. Stutterheim, Utrecht; R. W. T. Watts, Royal Free Hospital; W. H. Williams, Cambridge and St. Bartholomew's Hospital; and R. M. Wingent, Guy's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery :—V. H. Blake, A. R. Paterson, C. A. K. Renshaw, L. W. Roberts, and L. Sells.

LONDON SCHOOL OF TROPICAL MEDICINE.—At the examination at the close of the eighteenth session the following were successful :—

J. T. C. Johnson* (colonial service), E. R. Stitt*, D. Mackinnon, (colonial service), F. E. Wood* (colonial service), Miss Commissariat, W. L. M. Goldie (colonial service), J. S. Smith (colonial service), S. G. Allwood, E. V. Croker (colonial service), A. R. Wellington, E. Hopkinson (colonial service), J. T. Waite (colonial service), W. D. Innes (colonial service), N. Beaumont (colonial service), H. G. Waters, and T. E. F. Treevey (colonial service).
* With distinction.

VICTORIA UNIVERSITY OF MANCHESTER.—At the examination for the diploma in Public Health the following were successful :—

G. G. Buckley, O. H. Chapman, C. W Crawshaw, James Howard, and W. C. Rigby.

UNIVERSITY OF LEEDS.—At a Congregation held on July 22nd the degrees of Bachelor of Medicine and Bachelor of Surgery were conferred on the following :—

Robert Garside Dixon, Harold Fearnley, Alfred Gough, George Herbert Hustler, Thomas Edmund Lister, and Frederick Whalley.

The following are notified as having passed the earlier examinations for the same degrees :—

Final examination.—Part I.: James Paley Bibbey, Vivian Cuthbert Hackworth, Digby Wrangham Hardy, and Ernest William Reed.
Second examination.—Part I.: Archie Perlman. Part II.: William Harold Butler, Horace Lance Flint, James Hebblethwaite Martin Frobisher, Sydney Milverton Hepworth, John Barton Thompson Keswick, Guy Annesley Mitchell, George Colin Henderson Nicol, Bernard Charles Piercey, and Harold Vallow.
First examination.—Whole examination: William Shaw, Reginald Eccles Smith, and John Norman Lonsdale Thoseby. Part I. only: Israel Lewis Sinson.

UNIVERSITY OF ABERDEEN.—The following degrees and diploma have been conferred :—

Degree of Bachelor of Science (B.Sc.).—Hector Robert Adam, Aberdeen (with special distinction in chemistry); Agnes Valentine Baxter, M.A., Brechin; and James Alexander Hendry, M.A., Keith.

Degree of Doctor of Medicine (M.D.).—William Johnston Dewar, M.B., C.M., Arbroath (under old regulations); *Francis Grice Jones, M.B., C.M., Denbigh (under old regulations); †George Grant Macdonald, M.A., M.B., Ch.B., London Hospital; James Thornton Macpherson, M.B., C.M., Manchester (under old regulations); ‡John Stewart Milne, M.A., M.B., Ch.B., Hartlepool; †George Mitchell, M.B., Ch.B., Aberdeen; *Herbert Leith Murray, M.B., Ch.B., Dundee; *Alex. Charles Profeit, M.B., C.M., Ballater (under old regulations); and †Alex. Christie Reid, M.A., M.B., Ch.B., B.Sc., Nottingham.

Degree of Master of Surgery (Ch.M.).—†John Alex. Mackenzie, M.A., M.B., Ch.B., Oldham Infirmary.

Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) (New Ordinances).—James Milner Adams, M.A., Aberdeen; William Campbell, Buckaburn, Aberdeen; Alexander McRobbie Donaldson, Portknockie; Robert Reid Duncan, Bervie; Richard Eager, Winterbourne, Bristol; Francis William Falconer, Aberdeen (passed Final Examination, April, 1905); William Manson Fergusson, Banff; George Johnston Forgie, Longside; Reginald Arthur Forster, Burton-on-Trent; George Hall, M.A., Macduff; Alexander Walker Laing, Manchester; James McIntosh, Aberdeen; James Mackenzie, Aberdeen; Kenneth Mackinnon, Stornoway, Lewis; George Milne, Fyvie, by Oldmeldrum; John Alexander Milne, Portknockie; Harry Ross Neilson, Glass, Huntly; Paul Bernard Roth, Enfield; Robert Fergusson Russell, Aberdeen; James Silver, Gargunnock; Charles Mollyson Smith, Aberdeen; John Herbert Stephen, Fraserburgh; Isaac Frederick Bernhardi de Villiers, French Hoek, South Africa; Frederick Hamilton Welsh, Umtata, Cape Colony; Cristina Wilson, Aberdeen; and Douglas Alexander Wood, Sittingbourne.

Note.—Charles Butchart Gerrard has passed all the examinations but will not graduate until he has attained the necessary age.

Diploma in Public Health.—Donald John Gair Johnston, M.B., Ch.B. Aberd., Inverness; Alexander McRobbie, M.B., Ch.B. Aberd., Aberdeen; and §George Alexander Mavor, M.A., M.B., Ch.B. Aberd., Aberdeen.

* Commendation for thesis. † Honours for thesis
‡ Highest honours for thesis. § With credit.

QUEEN'S COLLEGE, BELFAST.—Among the prize-winners at the class examinations held at the close of the summer session were the following :—

Botany.—William Willis Dalzell Thomson, William Dickey, John James Gilmore, James Stuart Bellas, Albert Victor Craig, and William Hamilton.
Practical Biology.—William Willis Dalzell Thomson, James Stuart Bellas, Samuel Campbell, William Dickey, and Bertram Chlene Letts.
Practical Chemistry.—Senior: John Seymour. Junior: Thomas Hunter Bellas and Alexander Patton.
Chemical Laboratory.—Ormsby William Moore.
Medical Jurisprudence.—Charles Robert Harvey, Samuel M'Cormac, and Charles Graham Knight.
Systematic Pathology.—Henry Ferguson Shepherd, Charles Robert Harvey, and Samuel M'Cormac.
Practical Pharmacy.—Caroline Joanna Crawford, John Benjamin Crawford, John Blacker Aickin, and Henry Herbert MacWilliam.

Thomas Carnwath, B.A., M.B., has been elected to one of the research scholarships given by H.M. Commissioners of the Exhibition o 1851. The value of the scholarship is £150 per annum.

FOREIGN UNIVERSITY INTELLIGENCE.—*Bologna:* Dr. Romeo Mongardi of Turin has been recognised as *privat-docent* of Diseases of the Ear and Throat.—*Breslau:* Dr. Garré of Königsberg has been appointed to the Charge of the Surgical Clinic and Dr. F. Sauerbruch has been recognised as *privat-docent* of Surgery.—*Copenhagen:* Dr. O. A. Saunte has been recognised as *privat-docent* of Ophthalmology.—*Freiburg:* Dr. Paul Clemens has been promoted to an Extraordinary Professorship of Internal Medicine.—*Groningen:* Dr. P. C. Romkes has been recognised as *privat-docent* of Gastro-intestinal Diseases.—*Halle:* Dr. Oswald Baumgarten has been recognised as *privat-docent* of Internal Medicine, and Dr. Arthur Menzer, formerly of the Berlin Charité, has also been recognised as *privat-docent* of that subject.—*Königsberg:* Dr. W. Scholtz has been promoted to the Extraordinary Professorship of Dermatology, vacated by the resignation of Dr. Caspary.—*Leipsic:* Dr. Braun has been promoted to an Extraordinary Professorship of Surgery.

LITERARY INTELLIGENCE.—The Oxford University Press announces that the second part of the second supplement to the Index Kewensis will be ready immediately. This supplement covers the period 1896 to 1900. In the original work the genera and species of flowering plants from the time of Linnæus to 1885 were enumerated, and the first supplement carries on the list to 1895.

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II.—DRUGS.

Continued attention is being given to the improvement of pharmaceutical preparations and while the bases of old formulæ are in the main adhered to the plan of combination in a great number of instances is more subtle, a greater compatibility is aimed at and those new forms of drugs are chosen the effects of which are more satisfactory. As examples may be quoted the tonic formulæ which have replaced the syrups in which the glycerophosphates are substituted for ordinary phosphates and a more suitable vehicle than sugar. The old Blaud pill again is a very different compound from the modern combination of sulphate of iron and carbonate of soda protected by an effectual envelope of sugar or gelatin against the deteriorating influence of the air. Modern exhibitions of drugs are now generally directed to the display of such improvements together with the advances that have been made in organo-therapeutic preparations and are thus of special interest to the practitioner. 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James Woolley, Sons, and Co., Limited, of Victoria-bridge, Manchester, showed, amongst other interesting preparations, two excellent ointments of perfectly uniform consistence—namely, unguentum resorcin co., useful for skin diseases, and unguentum seditavum, a soothing ointment containing zinc oxide and carbolic acid. A very comprehensive exhibit was that of Messrs. Wyleys, Limited, of Coventry, including the heroin compounds and several excellent syrups and liquors. We have already noticed the merits of formolyptol exhibited by Andrus and Andrus of 46, Holborn-viaduct, London, E.C. It is a pleasant, powerful, and yet non-poisonous antiseptic containing active balsamic agents with formaldehyde. The same firm exhibited hemaboloids, which is stated to be an organic combination of iron and the nucleo-proteids. The Bayer Company, Limited, of 19, St. Dunstan's-hill, London, E.C., exhibited a number of new compounds and synthetics. Amongst these may be mentioned in the form of tablets metakalin, a pure, readily soluble preparation of cresol; veronal, a comparatively new hypnotic, saloquinine, an analgesic; mesotan, an external application in rheumatism and aspirin a substitute for the salicylates. The Angier Chemical Company, Limited, of 32, Snow-hill, London, E.C., exhibited specimens of their emulsion of petroleum with hypophosphites. It would appear that petroleum is not absorbed by the system but the hydrocarbon acts as an excellent vehicle, exerting an antiseptic, sedative, and demulcent action on the intestinal membrane. Messrs. Arthur and Co. of Ogle-street, London, W., made once more a point of their bromaurum used in the treatment of neurasthenia. The preparation is regarded as a direct nerve tonic and is said to be remarkable in subduing pain of long standing. A number of new preparations was shown at the stall of Messrs. Burgoyne, Burbidges, and Co. of 12 and 16, Coleman-street, London, E.C. Amongst these were colloidal calomel, "salit," a fluid containing salicylic acid, and novargan, a silver preparation with strong bactericidal properties and used in gonorrhœa. Messrs. Philip Harris and Co., Limited, of Birmingham had a very interesting display of pharmaceutical preparations, including suprarenalin solution, bactericidal soap, pencils of iodoform, and a series of concentrated mixtures compiled from the formulæ of the pharmacopœias of the London hospitals. Besides palatinoids of various animal substances, Messrs. Oppenheimer, Son, and Co., Limited, of 179, Queen Victoria-street, London, E.C., exhibited "metramine" palatinoids. Metramine is described as a purified form of hexamethylenetetramine which is said to be an excellent antiseptic for the genito-urinary tract, splitting up in the urine into formic aldehyde and ammonia and so rendering it both alkaline and antiseptic. There was also exhibited the now well-known vaporiser and aeriser of this firm. Messrs. C. J. Hewlett and Son of 35 to 42, Charlotte-street, London, E.C., exhibited a number of pharmaceutical preparations of decided merit. Such were, for example, their pepsine and bismuth mixture, their bromide compound and a linctus, and their linimentum betulæ co. containing amongst other things the active principle of oleum betulæ and camphor. Besides these there were a number of admirably prepared antiseptic compounds and an emollient cream. We have already drawn the attention of our readers to the milk of magnesia which was exhibited by the Charles H. Phillips Chemical Company of 14, Henrietta-street, Covent-garden, London, W.C. It is, of course, a powerful antacid and does not disengage gas on being neutralised. It is practically tasteless and incidentally is an excellent cleansing agent for the teeth. Local pharmacy was well represented at the stall of Messrs. T. Howard Lloyd and Co., the exhibit including medicine chests and cases, soluble coated pills, and a number of elegant pharmaceutical preparations. Lastly, Messrs. H. and T. Kirby and Co., Limited, of 14, Newman-street, London, W., exhibited the new synthetic aperient purgen besides a selection of tablets of compressed drugs, soft glycerine lozenges, pearl, gelatine, and sugar-coated pills, and some pleasant, besides effective, antiseptic preparations.

Medical News.

UNIVERSITY OF LONDON.—At examinations held in July the following candidates were successful:—

M.D. EXAMINATION.

Medicine.—William Fraser Annand, B.S., University College; Emile Dupont Aubin, B.S., Middlesex Hospital; William Henry Bailey, St. Bartholomew's Hospital; Elizabeth Honor Bone, B.S., London (Royal Free Hospital) School of Medicine for Women; Arthur Bousfield, B.Sc. (University medal), King's College; Archibald Douglas Hamilton, St. Thomas's Hospital; Percival George Harvey, B.S., St. Bartholomew's Hospital; Francis Riley, B.S., Westminster Hospital; and Edward Allan Wilson, B.S., University of Leeds.

Pathology.—Robert Henry Elliot, B.S., St. Bartholomew's Hospital.

Mental Diseases and Psychology.—Christine Mary Murrell, B.S., London (Royal Free Hospital) School of Medicine for Women.

Midwifery and Diseases of Women.—Mildred Mabel Burgess, London (Royal Free Hospital) School of Medicine for Women; Clement Woodthorpe Chaplin, London Hospital; Victor Evelyn Collins, Guy's Hospital; Thomas Henry Harker, St. Bartholomew's Hospital; Carlton Oldfield, B.S., University of Leeds; and Richard Horace Paramore, St. Bartholomew's Hospital.

State Medicine.—Francis Dawson Blandy, Middlesex Hospital and Victoria University; and Harold Tipping, University College and Guy's Hospital.

M.S. EXAMINATION.

Thomas Holmes, M.D. (University Medal), Guy's Hospital.

A meeting of the Faculty of Medicine was held on July 18th, Dr. J. K. Fowler, the dean of the faculty, being in the chair. The chairman announced that Dr. Lauriston E. Shaw had, in consequence of his election to the Senate, resigned the honorary secretaryship of the faculty. A vote of thanks to Dr. Shaw for his services during the past five years having been carried, it was resolved to postpone the election of a successor until the October meeting. A committee on teaching and research in the "advanced" subjects of the curriculum—viz., those subjects studied after passing the intermediate examination—presented an important report. The report contained proposals for the development of research in pathology, pharmacology, and clinical subjects and made suggestions for grouping the lectureships in subjects such as hygiene, forensic medicine, and mental diseases. The report also dealt with the question of securing funds for the support of medical education and the manner in which such funds should be allocated to different institutions and different subjects. In the final section of the report the committee made recommendations as to the periodical inspection by the University of the medical schools and the recognition by the Senate of practical work done by students in the wards and laboratories of the schools as counting towards the results of the final examinations. The report was amended by the faculty and adopted for presentation to the Senate. The faculty approved a report from the board of dentistry upon additional teaching required in London upon comparative odontology, the pathology of the teeth, and the mycology of the mouth. Resolutions were passed indicating the procedure approved by the faculty relating to theses for degrees in medicine and surgery. The regulations proposed by the Board of Advanced Medical Studies for candidates desiring to take the degree of M.D. in tropical medicine were considered and approved.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations in July the following candidates passed in the subjects indicated :—

Surgery.—H. J. Aldous (Section I.), King's College Hospital; and G. M. Seagrove (Section I.), St. Bartholomew's Hospital.
Medicine.—G. N. Biggs (Section I.), St. Thomas's Hospital and Durham; V. H. Blake (Sections I. and II.), St. George's Hospital; J. L. Meynell (Section I.), London Hospital; L. W. Roberts, Middlesex Hospital; L. Sells (Sections I. and II.), St. Thomas's Hospital; and E. W. T. Watts (Sections I. and II.), Royal Free Hospital.
Forensic Medicine.—G. N. Biggs, St. Thomas's Hospital and Durham; V. H. Blake, St. George's Hospital; E. M. Magill, Royal Free Hospital; L. Sells, St. Thomas's Hospital; and E. W. T. Watts, Royal Free Hospital.
Midwifery.—E. M. Magill, Royal Free Hospital; O. C. H. L. Moll, Guy's Hospital and Durham; A. R. Paterson, Calcutta; C. A. K. Renshaw, Cambridge; N. A. Stutterheim, Utrecht; E. W. T. Watts, Royal Free Hospital; W. H. Williams, Cambridge and St. Bartholomew's Hospital; and R. M. Wingent, Guy's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery :—V. H. Blake, A. R. Paterson, C. A. K. Renshaw, L. W. Roberts, and L. Sells.

LONDON SCHOOL OF TROPICAL MEDICINE.—At the examination at the close of the eighteenth session the following were successful :—

J. T. C. Johnson* (colonial service), E. R. Stitt*, D. Mackinnon, (colonial service), F. E. Wood* (colonial service), Miss Commissariat, W. L. M. Goldie (colonial service), J. S. Smith (colonial service), S. G. Allwood, E. V. Croker (colonial service), A. R. Wellington, E. Hopkinson (colonial service), J. T. Waite (colonial service), W. D. Inness (colonial service), N. Beaumont (colonial service), H. G. Waters, and T. E. F. Tovey (colonial service).
* With distinction.

VICTORIA UNIVERSITY OF MANCHESTER.—At the examination for the diploma in Public Health the following were successful :—

G. G. Buckley, O. H. Chapman, C. W Crawshaw, James Howard, and W. C. Rigby.

UNIVERSITY OF LEEDS.—At a Congregation held on July 22nd the degrees of Bachelor of Medicine and Bachelor of Surgery were conferred on the following :—

Robert Garside Dixon, Harold Fearnley, Alfred Gough, George Herbert Hustler, Thomas Edmund Lister, and Frederick Whalley.

The following are notified as having passed the earlier examinations for the same degrees :—

Final examination.—Part I.: James Paley Bibbey, Vivian Cuthbert Hackworth, Digby Wrangham Hardy, and Ernest William Reed.
Second examination.—Part I.: Archie Periman. Part II.: William Harold Butler, Horace Lance Flint, James Hebblethwaite Martin Frobisher, Sydney Milverton Hepworth, John Barton Thompson Kewick, Guy Annesley Mitchell, George Colin Henderson Nicol, Bernard Charles Piercey, and Harold Vallow.
First examination.—Whole examination: William Shaw, Reginald Eccles Smith, and John Norman Lonsdale Thoseby. Part I. only: Israel Lewis Sinson.

UNIVERSITY OF ABERDEEN.—The following degrees and diploma have been conferred :—

Degree of Bachelor of Science (B.Sc.).—Hector Robert Adam, Aberdeen (with special distinction in chemistry); Agnes Valentine Baxter, M.A., Brechin; and James Alexander Hendry, M.A., Keith.

Degree of Doctor of Medicine (M.D.).—William Johnston Dewar, M.B., C.M., Arbroath (under old regulations); *Francis Grice Jones, M.B., C.M., Denbigh (under old regulations); †George Grant Macdonald, M.A., M.B., Ch.B., London Hospital; James Thornton Macpherson, M.B., C.M., Manchester (under old regulations); ‡John Stewart Milne, M.A., M.B., Ch.B., Hartlepool; †George Mitchell, M.B., Ch.B., Aberdeen; *Herbert Leith Murray, M.B., Ch.B., Dundee; *Alex. Charles Profeit, M.B., C.M., Ballater (under old regulations); and †Alex. Christie Reid, M.A., M.B., Ch.B., B.Sc., Nottingham.

Degree of Master of Surgery (Ch.M.).—†John Alex. Mackenzie, M.A., M.B., Ch.B., Oldham Infirmary.

Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) (New Ordinances).—James Milner Adams, M.A., Aberdeen; William Campbell, Bucksburn, Aberdeen; Alexander McRobbie Donaldson, Portknockie; Robert Reid Duncan, Bervie; Richard Eager, Winterbourne, Bristol; Francis William Falconer, Aberdeen (passed Final Examination, April, 1905); William Manson Fergusson, Banff; George Johnston Forgie, Longside; Reginald Arthur Forster, Burton-on-Trent; George Hall, M.A., Macduff; Alexander Walker Laing, Manchester; James McIntosh, Aberdeen; James Mackenzie, Aberdeen; Kenneth Mackinnon, Stornoway, Lewis; George Milne, Fyvie, by Oldmeldrum; John Alexander Milne, Portknockie; Harry Ross Neilson, Glass, Huntly; Paul Bernard Roth, Enfield; Robert Fergusson Russell, Aberdeen; James Silver, Gargunnock; Charles Mollyson Smith, Aberdeen; John Herbert Stephen, Fraserburgh; Isaac Frederick Bernhardi de Villiers, French Hoek, South Africa; Frederick Hamilton Welsh, Umtata, Cape Colony; Cristina Wilson, Aberdeen; and Douglas Alexander Wood, Sittingbourne.

Note.—Charles Butchart Gerrard has passed all the examinations but will not graduate until he has attained the necessary age.

Diploma in Public Health.—Donald John Gair Johnston, M.B., Ch.B. Aberd., Inverness; Alexander McRobbie, M.B., Ch.B. Aberd., Aberdeen; and §George Alexander Mavor, M.A., M.B., Ch.B. Aberd., Aberdeen.

* Commendation for thesis. † Honours for thesis
‡ Highest honours for thesis. § With credit.

QUEEN'S COLLEGE, BELFAST.—Among the prize-winners at the class examinations held at the close of the summer session were the following :—

Botany.—William Willis Dalzell Thomson, William Dickey, John James Gilmore, James Stuart Bellas, Albert Victor Craig, and William Hamilton.
Practical Biology.—William Willis Dalzell Thomson, James Stuart Bellas, Samuel Campbell, William Dickey, and Bertram Chiene Letts.
Practical Chemistry.—Senior: John Seymour. Junior: Thomas Hunter Bellas and Alexander Patton.
Chemical Laboratory.—Ormsby William Moore.
Medical Jurisprudence.—Charles Robert Harvey, Samuel M'Cormac, and Charles Graham Knight.
Systematic Pathology.—Henry Ferguson Shepherd, Charles Robert Harvey, and Samuel M'Cormac.
Practical Pharmacy.—Caroline Joanna Crawford, John Benjamin Crawford, John Blacker Aickin, and Henry Herbert MacWilliam.

Thomas Carnwath, B.A., M.B., has been elected to one of the research scholarships given by H.M. Commissioners of the Exhibition o 1851. The value of the scholarship is £150 per annum.

FOREIGN UNIVERSITY INTELLIGENCE.—*Bologna:* Dr. Romeo Mongardi of Turin has been recognised as *privat-docent* of Diseases of the Ear and Throat.—*Breslau:* Dr. Garré of Königsberg has been appointed to the Charge of the Surgical Clinic and Dr. F. Sauerbruch has been recognised as *privat-docent* of Surgery.—*Copenhagen:* Dr. O. A. Saunte has been recognised as *privat-docent* of Ophthalmology.—*Freiburg:* Dr. Paul Clemens has been promoted to an Extraordinary Professorship of Internal Medicine.—*Groningen:* Dr. P. C. Romkes has been recognised as *privat-docent* of Gastro-intestinal Diseases.—*Halle:* Dr. Oswald Baumgarten has been recognised as *privat-docent* of Internal Medicine, and Dr. Arthur Menzer, formerly of the Berlin Charité, has also been recognised as *privat-docent* of that subject.—*Königsberg:* Dr. W. Scholtz has been promoted to the Extraordinary Professorship of Dermatology, vacated by the resignation of Dr. Caspary.—*Leipsic:* Dr. Braun has been promoted to an Extraordinary Professorship of Surgery.

LITERARY INTELLIGENCE.—The Oxford University Press announces that the second part of the second supplement to the Index Kewensis will be ready immediately. This supplement covers the period 1896 to 1900. In the original work the genera and species of flowering plants from the time of Linnæus to 1885 were enumerated, and the first supplement carries on the list to 1895.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—The following candidates having passed the necessary examination have been admitted Fellows of the College: Mr. J. Campbell, L.R.C.P. & S.I., and Mr. W. J. Mullin, M.B., B.Ch. New Zealand.

KING'S COLLEGE HOSPITAL—OPENING CEREMONY.—The next session will commence on Tuesday, Oct. 3rd, when Professor T. Clifford Allbutt will distribute the prizes and give the opening address on Medical Education in London. The address will be given in the large theatre at King's College at 3 P.M. The annual dinner of old students of King's College Hospital will be held at 7 o'clock on the same evening at the Hotel Cecil when Mr. Arthur A. Napper will preside. Tickets may be obtained from the honorary secretaries: Dr. Percy G. Lewis, 22, Manor-road, Folkestone; Major M. Percy Holt, D.S.O., R.A.M.C., King's College Hospital; Dr. J. F. W. Silk, 47, Devonshire-street, Portland-place, London, W.; Mr. Albert Carless, 10, Welbeck-street, London, W.; and Dr. John Charlton Briscoe, 110, Harley-street, London, W.

THE STUDY OF METEOROLOGY.—With the object of advancing the general knowledge of meteorology the council of the Meteorological Society has appointed a lecturer who is prepared to deliver lectures on meteorological subjects—e.g.: How to Observe the Weather, Weather Forecasting, Climate, Rainfall, Thunderstorms, Meteorology in Relation to Agriculture, Health, &c. The lectures will be illustrated by lantern slides from a large collection in the possession of the society. Societies and institutions wishing such lectures will be expected to pay a moderate fee and to defray travelling expenses. Lantern slides can also be obtained on hire from the council of the society which is willing to arrange for exhibiting at the gatherings of local scientific societies, institutions, or schools a collection of photographs, drawings, diagrams, and charts illustrating meteorological phenomena, and of various patterns of instruments used for meteorological observations. It will also, if desired, lend and fit up a complete climatological station for exhibition, showing the necessary instruments in position and ready for use. Further particulars can be obtained from the Assistant Secretary, Royal Meteorological Society, 70, Victoria-street, S.W.

UNIVERSITY OF OXFORD: PATHOLOGY ENDOWMENT FUND.—In connexion with the Fund which has been started with the object of obtaining suitable endowment for the chair of pathology in Oxford, and which already exceeds the sum of £2000, the following address was presented to the University on June 20th by a deputation from the Oxford medical graduates:—

ADDRESS TO THE CHANCELLOR, MASTERS, AND SCHOLARS OF THE UNIVERSITY OF OXFORD.

We, the undersigned, members of the University of Oxford, feeling the keenest interest in the welfare of medical education at our University, desire to draw your attention to the action which has been taken by a large number of the Oxford graduates in medicine.

We believe that, although Oxford cannot successfully enter into competition with the metropolis and other large centres for the purpose of clinical teaching, the scientific training of the medical student can be most efficiently carried out in the University; and as a part of the curriculum we consider that the scientific aspect of pathology and bacteriology, as distinct from morbid anatomy, should be permanently provided for at Oxford. This object can only be attained by an endowment, which will secure permanent provision for the teachers of pathology, and for the maintenance of the excellent laboratory the University already possesses. In order to promote such endowment, a meeting of Oxford medical graduates was held upon December 20th, 1904, and the following resolution was passed: "That with a view to showing the strong feeling the Oxford medical graduates have of the necessity for promoting the study and teaching of pathology, a fund be started for the purpose of assisting in this object; and that it be primarily for the establishment and endowment of a professorship in pathology." In accordance with this resolution a "Pathology Endowment Fund" has been started.—We have the honour to be,

Your obedient Servants,
W. S. CHURCH, M.A., D.M., Hon. D.Sc.,
Chairman of Executive Committee.

Followed by the names of 164 Oxford medical graduates.

BOOKS, ETC., RECEIVED.

INTERNATIONAL JOURNAL OF SURGERY Co., 100, William-street, New York.

The Surgical Assistant. A Manual for Students, Practitioners, Hospital Internes, and Nurses. By Walter M. Brickner, B.S., M.D., New York City. Price $2.00.

JACK, T. C. AND E. C., Edinburgh, and 34, Henrietta-street, London, W.C.

The Edinburgh Stereoscopic Atlas of Anatomy. Edited by David Waterston, M.A., M.D., F.R.C.S.E., F.R.S.E., Lecturer and Senior Demonstrator in the Department of Anatomy, Edinburgh University. Section II. Contents—50 Plates (Abdominal Wall, Inguinal Region, Abdominal Cavity, Viscera, Abdominal Aorta, Pelvis, Bladder). Prepared under the control of the Department of Anatomy of the University of Edinburgh. Price of each of the five Sections, £1 5s. net.

STUBER, A. (C. KABITZSCH), Würzburg.

Beiträge zur Klinik der Tuberkulose. Herausgegeben von Dr. Ludolph Brauer, A.O. Professor an der Universität Marburg, Direktor der Medizinischen Poliklinik. Band IV. Heft 1. Einzelpreis M.4.50.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The University of Sheffield and its Representation on the General Medical Council

AN amendment has been made in the Sheffield University Bill to provide that the fees for attendance and the travelling expenses of a member payable under section 12 of the Medical Act, 1858, shall not be paid from the funds of the General Medical Council or of the Branch Council for England until such time as, upon the representation of the General Medical Council or of the Privy Council, made in the manner set forth in sections 10 and 19 of the Medical Act, 1886, and subject to the provisions therein contained, His Majesty may by order in Council appoint.

HOUSE OF LORDS.

THURSDAY, JULY 20TH.

Physical Deterioration.

A long debate on this subject took place on the initiative of the Bishop of RIPON and the Duke of DEVONSHIRE. The right reverend prelate called for further inquiry on the subject of infant mortality and the Duke of DEVONSHIRE suggested an anthropometric survey with a view to the collection of definite data bearing upon the physical condition of the population as recommended in the report of the Committee on Physical Deterioration.—On behalf of the Government the Marquis of LANSDOWNE repudiated the imputation of indifference in regard to the matter and stated that the whole question would be further inquired into by a Royal Commission.

HOUSE OF COMMONS.

WEDNESDAY, JULY 19TH.

Diphtheria in Poor-law Schools.

Sir WALTER FOSTER asked the President of the Local Government Board whether, in view of the outbreak of diphtheria at the Norwood Poor-law schools which had extended to 61 children, notwithstanding the care and skill taken for its prevention, he would consider the advisability of breaking up this aggregation of 500 children in accordance with the recommendations of the departmental committee's report of 1897.—Mr. GERALD BALFOUR answered: It appears to be doubtful whether there can properly be said to have been an outbreak of diphtheria at these schools in the sense in which that expression is ordinarily understood. I am informed that only three of the cases presented the ordinary clinical symptoms of the disease and that in the remaining cases there had been no disturbance of the children's health, although the bacillus of diphtheria or some other bacillus resembling it had been discovered by bacteriological methods. It does not seem to be necessary to consider the advisability of breaking up the school.

Tuberculosis.

Mr. MORRELL asked the President of the Board of Agriculture whether the Royal Commission on Tuberculosis had reported, or would shortly report, on the effect produced, or disease set up, by introducing into the body of the bovine animal material containing living tubercle bacilli of human and bovine origin respectively through the alimentary canal as distinct from the effect when introduced by subcutaneous injection and whether he would urge an early report on the third clause of the reference, viz., under what conditions, if at all, the transmission of the disease from animals to man took place and what were the circumstances favourable or unfavourable to such transmission as affecting food for man.—Mr. GERALD BALFOUR answered: As I stated in my reply to the honourable Member for the Eastern division of Northants on May 9th last I understand that the Royal Commission hopes to issue a further interim report towards the end of the present year. I am informed that this report will contain details of the different results obtained by various methods of infecting bovine and other animals with tubercle derived from different sources, but I understand that some considerable time must elapse before the Commission can issue a report dealing with the third clause of the reference to it.

THURSDAY, JULY 20TH.

Missing State Papers.

Mr. MACVEAGH asked the Secretary of State for the Colonies whether his attention had been called to the statement of Sir Fleetwood Wilson at the War Stores Commission to the effect that the cause of the disappearance of the missing papers was that a rat got into the store in which the papers were kept, and that the medical officer ordered the

destruction of the papers in order to prevent a plague; whether the medical officer's report was verbal or written; and whether he could communicate the details to the House.—Mr. LYTTELTON replied: The details in connexion with the matter referred to have already been communicated to the House in reply to a question put by the honourable Member for South Donegal on Feb. 8th, 1904, to which I have nothing to add.

The Nursing of the Sick Poor in Workhouses.

MR. TALBOT asked the President of the Local Government Board whether his attention had been drawn to the condition of the nursing of the sick poor in the workhouses, especially in those which contained only a small number of such inmates; what action had been taken in accordance with the recommendations of the departmental committee which reported on this subject in November, 1902; and whether he could give an assurance that early steps would be taken to carry out those recommendations.—MR. GERALD BALFOUR answered: After the report of the departmental committee was issued a considerable number of representations were received by the department in connexion with the recommendations of the committee and an order dealing with the subject is in preparation.

Malta Fever.

MR. YERBURGH asked the Secretary to the Admiralty whether he would state the number of men invalided from Malta fever annually for the ten years from 1895 to 1905 and whether any medical inquiry into the cause of Malta fever had been instituted.—MR. PRETYMAN answered: A committee, including representatives of the Navy, Army, and Colonial services, has been making inquiry since June, 1904, into the causation and life-history of Malta fever, under the directions and auspices of the Royal Society. Much valuable information has been gained and has been published in interim reports which hold out strong hopes of this fever being in the future more successfully grappled with than in the past. The number of men invalided is as follows:—

Year.	Number of invalids.	Year.	Number of invalids.
1897*	191	1902	250
1898	149	1903	209
1899	68	1904	191
1900	188	1905 (return not yet complete).	
1901	163		

* First year in which Mediterranean fever was shown in the report as a distinct heading.

Vaccination Defaulters in Scotland.

MR. WEIR asked the Lord Advocate whether he would state the number of prosecutions of vaccination defaulters in Scotland during the current year and for each of the last five years.—The LORD ADVOCATE replied: The information which would enable me to answer the first part of the hon. Member's question is not yet procurable. The prosecutions for the five years ended June 30th, 1904, are—for 1900, 59; for 1901, 108; for 1902, 56; for 1903, 82; and for 1904, 73.

TUESDAY, JULY 25TH.

Small-pox in Belfast.

MR. JOSEPH DEVLIN asked the Chief Secretary for Ireland whether he was aware that a recrudescence of small-pox was threatened in Belfast and that the corporation refused, contrary to the especial custom, to supply its aid to the ratepayers except where an outbreak occurred in an applicant's house or where an order from a medical man or inspector was presented; and whether he would in the interest of the health of the city cause representations to be made to the corporation in this matter.—MR. LONG answered: A case of small-pox occurred in Belfast on June 23rd and the Local Government Board is informed that all necessary precautions to prevent the spread of the disease have been taken. The patient was removed to the small-pox hospital and the other inmates to the reception house for isolation, the house was disinfected, the bedding, &c., burned, and revaccination freely administered in the neighbourhood. No further case has been reported. The Board has no information that the corporation has refused to take necessary measures for the protection of the public health.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.

BREWER, ALEC H., M.R.C.S., L.R.C.P. Lond., has been appointed Anæsthetist to the Samaritan Free Hospital for Women.

EARLE, R. A., L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the Weston-super-Mare District of the Axbridge Union.

FRAMPTON, TREVETHAN, F.R.C.P., M.R.C.S., has been appointed Clinical Assistant to the Chelsea Hospital for Women.

HANCOCK, W. J., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Stalybridge District of the county of Chester.

HILL, R. A. L., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Wimbledon District of the county of Surrey.

LAPAGE, C. P., M.D. Vict., has been appointed Medical Officer to the Out-patient Department of the Manchester Children's Hospital.

MCGAVIN, LAWRIE H., F.R.C.S. Eng., has been appointed Surgeon to the In-patients on the Staff of the *Dreadnought* Hospital, Greenwich.

PATERSON, MARCUS S., M.B., B.S., M.R.C.S., L.R.C.P., has been appointed Medical Superintendent of the Brompton Hospital Sanatorium, Frimley, Surrey.

SWAINSON, G. M. G., F.R.C.S., has been appointed Assistant Surgeon to the North-Eastern Hospital for Children, Hackney-road.

THOMAS, L. KIRKBY, M.R.C.S., L.R.C.P. Lond., has been appointed Anæsthetist to the Birmingham and Midland Hospital for Women.

TYLECOTE, FRANK EDWARD, M.D. Vict., has been appointed Medical Registrar to the Manchester Royal Infirmary.

WESTERMAN, ARTHUR, M.D. Aberd., has been appointed Medical Officer to the City of London and East London Dispensary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ALDERSHOT URBAN DISTRICT COUNCIL.—Medical Officer of Health and Superintendent of the Isolation Hospital. Salary £300 per annum (being £275 as Medical Officer of Health and £25 as Medical Superintendent of the Isolation Hospital, &c.)

BATH ROYAL UNITED HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, lodging, and washing.

BIRKENHEAD BOROUGH HOSPITAL.—Senior and Junior Resident House Surgeons. Salaries £100 and £80 respectively, with fees.

BOURNEMOUTH, ROYAL VICTORIA HOSPITAL.—House Surgeon. Salary £100 per annum, with board and lodging.

BRISTOL ROYAL INFIRMARY.—Resident Junior House Surgeon and Anæsthetist. Also Resident Casualty Officer. Salary at the rate of £50 per annum, with board, lodging, and washing.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary £150 per annum, with apartments.

DOUGLAS, ISLE OF MAN, NOBLE'S ISLE OF MAN HOSPITAL AND DISPENSARY.—Resident House Surgeon, unmarried. Salary £90 a year, with board and washing.

EDINBURGH, UNIVERSITY OF.—Professor of Midwifery.

LANCASTER, ROYAL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with residence, board, attendance, and washing.

LEICESTER INFIRMARY.—Two Assistant House Surgeons for six months. Salary at rate of £50 per annum, with board, lodging, and washing.

LONDON LOCK HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.

MACCLESFIELD, CHESHIRE COUNTY ASYLUM.—Junior Assistant Medical Officer, unmarried. Salary £140, rising to £160, with apartments, board, and washing.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, E.—Resident Medical Officer. Salary £100 per annum, with board, residence, and washing.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Resident Medical Officer. Salary at rate of £60 per annum, with board, residence, and washing.

ROXBURGH DISTRICT ASYLUM, Melrose, N.B.—Assistant Medical Officer. Salary £140 per annum, with board, rooms, &c.

ST. MARK'S HOSPITAL FOR FISTULA, &c., City-road, E.C.—Junior Anæsthetist. Salary £25 per annum.

ST. MARYLEBONE, PARISH OF.—District Medical Officer. Salary commencing £90 per annum.

SALOP INFIRMARY, Shrewsbury.—House Surgeon. Salary £100 per annum, with board, washing, and residence.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £60 per annum, with board, lodging, and washing. Also Junior House Physician. Salary £60 per annum, with board, lodging, and washing.

STRAITS SETTLEMENT, MUNICIPALITY OF THE TOWN OF SINGAPORE.—Assistant Municipal Health Officer, unmarried. Salary £400 per annum.

YORKSHIRE, WEST RIDING COUNTY COUNCIL.—Assistant to County Medical Officer. Salary £250 per annum, rising to £400.

Births, Marriages, and Deaths.

BIRTHS.

ANDERSON.—At Pitlochrie, Perthshire, on July 23rd, the wife of John Anderson, M.B. & C.M. Edin., of a daughter.

GIBSON.—On July 24th, at 6, College-terrace, Hampstead, N.W., the wife of H. W. Gibson, M.B., of a son.

WATSON.—On July 20th, at the Oriel House, Leigh, Essex, the wife of W. Douglas Watson, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

YOUNG.—At The Glebe, Hamilton, on July 21st, the wife of J. Murray Young, M.B., of a son.

MARRIAGES.

DIXON—BOKENHAM.—On July 19th, at the parish church, St. Mary's, Hanwell, George Edwin Dixon, M.D., to Marie K. H. Bokenham, eldest daughter of William Henry Bokenham of St. Vincent Lodge, Hanwell, Middlesex.

FOULKES—FISCHER.—On July 20th, at the Portsea parish church, Captain Thomas Howard Foulkes, F.R.C.S., Indian Medical Service, to Bertha, second daughter of Colonel Bowness Fischer, late Indian Staff Corps.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

IMPERTINENT ADVERTISEMENT.

WE have received from Messrs. J. Samuda and Co., Limited, a letter, not intended for publication, offering to reply in the following terms to our recent criticisms of their methods: "On the off chance of your being prepared to allow me this priviledge (*sic*), I am writing you to state that I am prepared to write an answer providing you give me a written undertaking to publish the same without alteration or any comment in the issue in which my letter would appear." Messrs. Samuda and Co.'s letter, which, of course, contains the amiable suggestion that if the firm had been an advertiser in our columns no remarks about its methods of doing business would have been published, concludes as follows: "One naturally expects criticism if one tries to catch or do the public, but one does not feel it is necessary to protect themselves (*sic*) in carrying on a purely legitimate business." Messrs. Samuda and Co., Limited, are evidently very cross at our expressed opinion that the offer to supply medical men with cigars at a low price so that medical men may recommend these cigars to their patients is impertinent and objectionable. They do not appear to see that the medical profession naturally resents the suggestion that its members should be transformed into touts for the sale of tobacco. We have no objection whatever to Messrs. Samuda and Co. trying to obtain a market for their wares so long as they do not insult the medical profession in their endeavours, and we have no ill-feeling towards the firm as they allege, even though they have brought a vulgar accusation of corruption against us. But the situation is so absolutely clear that we do not think that Messrs. Samuda and Co. will be able to alter it by any letter of protest. We cannot, of course, promise to publish their communication until we have seen it and if we do publish it we cannot promise to abstain from correcting any misstatements in it. With regard to publishing "the same without alteration" as Messrs. Samuda and Co. would bind us to do, are they quite prudent in depriving themselves of the assistance of our proof-readers in the matters of grammar and spelling?

A NURSE-INSPECTOR OF SCHOOLS.

To the Editors of THE LANCET.

SIRS,—"L.R.C.S., &c.," sends an instructive letter. Perhaps the following may also be of interest. A school boy was brought to me by his mother with a lacerated wound over the right eyebrow. The wound, which had been dressed by the boy's teacher, was not doing well. My examination revealed: (*a*) no attempt to secure apposition of the cut edges; (*b*) a clot interposing which had become septic. The mother, being annoyed at the careless dressing, complained to the head mistress. This lady's comment was that she was sure her teachers could dress an ordinary wound equal to any doctor. It appears that here, in Bethnal Green (with the sanction of the County Council which supplies the dressings), all teachers who hold the St. John Ambulance certificate are allowed to do a medical man's work.

I am, Sirs, yours faithfully,
L.S.A.

"AN AUTHORISED BONESETTER."

THERE is a person named Blackbourn who appears to have selected Lincolnshire as a field for his exploits, who advertises himself by handbill as the "authorised bonesetter" to unions of fishermen, firemen, sailors, dockers, and railway hands, and who publishes a testimonial from the guardians of the Spilsby union. The value of testimonials obtained from sufferers is known to all the world, the patient being, as a rule, violently grateful when the treatment has had nothing to do with the result. But a board of guardians is in a different position and one that ought to enable it to be more critical. Hence we are surprised to find the Spilsby guardians authorising their clerk to write a testimonial for a quack, while we wonder how far those who have thus made themselves responsible for a sort of popular and official approval of the said quack's methods have any first-hand knowledge of the circumstances.

A RECIPIENT OF MANY DEGREES.

WHO is the most favoured recipient of honorary degrees at the hands of various universities? There is no need in replying to this question to speculate upon the amount of complimentary degrees held by, say, Lord Lister or Lord Kelvin. These and all other likely candidates for seniority are, we believe, beaten right out of the field by "John Hopkins." Every time that Professor Osler, for example, the ex-professor of medicine in the famous Baltimore University, received a complimentary degree John Hopkins of Baltimore scored equally, becoming (at any rate in British newspapers) a D.Sc., a D.C.L., and a five-barrelled LL.D. Now that Professor Halsted, professor of surgery in the same University, is being honoured by the Royal College of Surgeons of Edinburgh, John Hopkins is having an honorary Scottish degree conferred upon him by quite a large section of our press, and we are sure that he has similarly obtained credit for many honours obtained by other professors at the Johns Hopkins University. We think that it is getting time that the existence of the Johns Hopkins University at Baltimore should become more obvious to some of our journalists, for it really is rather a well-known institution.

HEALTHY COSTUME FOR GIRLS.

To the Editors of THE LANCET.

SIRS,—I think that "B.A." would find the information he requires in some of the recent numbers of the *Dress Review* and in one or two of the pamphlets published by the Healthy and Artistic Dress Union, which can be obtained from the honorary secretary of the union, Miss Maude A. Biggs, 3, Alexandra-road, South Hampstead, N.W., who would, I am sure, be pleased to answer any questions on the subject.

I am, Sirs, yours faithfully,
July 25th, 1905. R.

To the Editors of THE LANCET.

SIRS,—In reply to "B.A." as to the healthiest way of clothing his daughter, aged 14 years, I suggest the following as allowing perfect freedom for the limbs with sufficient warmth. A thin all-wool garment extending from the neck to just below the knees to be worn next to the skin; this should be very thin with short sleeves during the summer and medium weight and long sleeves during the winter. A "maid's" corset, with shoulder straps made of stout jean and slightly shaped; this buttons down the front, lacing behind, and has no whalebone or steels. Dark-blue drill knickers should be worn with button to the lower edge of the corset. The last garment is a petticoat of striped Oxford shirting with calico bodice which in the winter may be made of Scotch wincey and thin flannel respectively. These clothes should be all changed and washed weekly. It may be noticed that there is no weight on the hips or about the waist, everything hanging from the shoulders. Thin cashmere stockings, reaching well above the knee, and thicker ones for the winter, should be kept up by elastic suspenders from the corset.

I am, Sirs, yours faithfully,
July 22nd, 1905. K.

A WARNING.

To the Editors of THE LANCET.

SIRS,—May I draw the attention of your readers to a man, aged from 40 to 45 years, about 5 feet 6 inches in height, with close-cut grey hair, clean-shaven fat cheeks, and rather watery eyes, dressed in dark grey lounge suit and a black bowler hat? He says he is travelling in dressings, &c., and reports himself as an old medical student of the Owens College and Durham who has been in Australia for many years. He gives the name of Warren and is not safe to leave alone. He called on me four years ago and left with a hypodermic outfit and is now at his old practices again.

I am, Sirs, yours faithfully,
Sloane-street, S.W., July 21st, 1905. W. W. WOOLLISCROFT.

Inkberrow.—Perhaps our correspondent can give us fuller information; we do not know the substance.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (31st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.).

TUESDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.).

WEDNESDAY (2nd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.) Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.),

London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.).

THURSDAY (3rd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (1.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.).

FRIDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (1.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.).

SATURDAY (5th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index to Vol. I. of 1905, which was completed with the issue of June 24th, and the Title-page to the Volume, were given in THE LANCET of July 1st.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1905 are now ready. Bound in cloth, gilt lettered, price 18*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

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WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

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SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTICE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 27th, 1905.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
July 21	30·08	S.W.	...	109	79	62	63	69	Cloudy
,, 22	30·00	S.W.	...	135	83	63	64	69	Fine
,, 23	29·87	S.W.	...	117	72	64	63	64	Raining
,, 24	29·95	N.	0·28	119	76	60	58	62	Cloudy
,, 25	29·96	W.	...	128	80	60	62	67	Fine
,, 26	30·02	W.	...	129	84	65	66	71	Cloudy
,, 27	29·95	E.	...	109	75	66	64	71	Cloudy

During the week marked copies of the following newspapers have been received:—*Surrey Advertiser, Reading Mercury, Literary Digest, Plymouth Mercury, Freeman's Journal, Hertfordshire Mercury, Windsor and Eton Express, Liverpool Courier, Eastbourne Chronicle, Morning Leader, St. James's Gazette, Manchester Evening News, Newcastle Journal, Bradford Telegraph, Daily News, Liverpoo Post and Mercury, Daily Chronicle, Standard, Echo, &c.*

Communications, Letters, &c., have been received from—

A.—Mr. G. W. Atkinson, Lond.; Aston Union, Clerk of; Mr. J. W. Arrowsmith, Bristol; Ashton-under-Lyne District Infirmary, Secretary of.

B.—Sir Lauder Brunton, Lond.; Mr. R. V. Bapat, Kolhapur; Miss M. A. Brooke, Cirencester; Bristol Royal Infirmary, Secretary of; Messrs. C. Buswell and Co., Lond.; Mr. E. Stanmore Bishop, Manchester; Mr. A. M. Barford, Lond.; Dr. Duncan Brown, Newport, Monmouthshire; *British Australasian*, Lond., Editor of; Birkenhead Borough Hospital, Secretary of; Dr. E. A. C. Baylor, Ash; Messrs. Burroughs Wellcome and Co., Lond.

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I.—International Plasmon, Lond.; International Surgical Society, Lond., Secretary of; Institute of Chemistry of Great Britain and Ireland, Secretary of; *Il Giornale D'Italia*, Rome, Editor of;

J.—Dr. W. Denton Johns, Parkstone; Messrs. D. Hill Jack and Son, Glasgow; Jay, Playgoers' Club, Lond.; Mr. N. Lane Jackson, Lond.; Walter Judd, Ltd., Lond.; Dr. Robert Jones, Claybury.

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L.—London (Royal Free Hospital) School of Medicine for Women, Secretary of; Lawrence Patent "Military Pattern" Portable Water Sterilizer Co., Lond.; Lancashire County Asylum, Winwick, Clerk of.

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P.—Mr. Y. J. Pentland, Edinburgh; Messrs. J. and J. Paton, Lond.; Dr. T. G. Parrott, Aylesbury; Mr. F. A. Pond, Liverpool; *Plumber and Decorator*, Editor of.

R.—Messrs. Reynolds and Branson, Leeds; Royal Society of London, Secretary of; Royal Victoria Hospital, Bournemouth, Secretary of; Rebman, Ltd., Lond.; Royal College of Physicians, Edinburgh, Secretary of; Messrs. Robertson and Scott, Edinburgh; Royal Hospital for Sick Children, Edinburgh, Hon. Secretary of; Miss May Rathbone, Lond.; Mr. E. G. Righton, Evesham.

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Letters, each with enclosure, are also acknowledged from—

A.—Mr. G. A. Allan, Glasgow; Ayr County Hospital, Secretary of; Mr. E. Arnold, Lond.; A. A.; A. G. J.; A. T. H.; A. E. T.; A. M.

B.—Mr. W. L. Byham, Sunbury; Mr. G. Byres, Lond.; Mr. H. S. D. Browne, Winchester; Dr. W. H. Bishop, Wylam-on-Tyne; Dr. C. A. Ball, Dublin; Mr. H. H. Ballachey, Heckington; Mrs. Ballin, Lond.; Surgeon R. P. Bate, R.N., Devonport; *Bath Journal*, Manager of; Mr. P. B. Ballard, Port Talbot; Bad Schinznach, Switzerland, Director of Baths of; Mr. W. W. Betenson, Hatch End; Messrs. J. H. Booty and Son, Lond.; *Birmingham Daily Post*, Manager of; Mr. W. R. Barlow, Lond.

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